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I

THE PUBLIC SCHOOLS OF PARIS[1]

The public elementary education of the city of Paris is organized upon the same general plan that obtains throughout French territory. I may describe this briefly. Public elementary education, in all its stages, is free (law of June 16, 1881). In religious matters it is entirely neutral; in other words, no lessons of the school shall attempt to influence the religious beliefs of the children or of their families; nor shall any teacher of the school nor any minister of a sect give religious instruction within the school buildings, even after recitation hours (law of March 28, 1882). The school has a holiday once a week, besides Sunday, in order to allow parents, who so desire, to give their children religious instruction; but it is well understood that such instruction must be had outside of school precincts, either in the churches of the various sects, or in private.

Parents are required to provide for their children instruction covering at least the subjects prescribed by the programme of primary elementary instruction (law of March 28, 1882). Instruction is compulsory for all children of both sexes, from the end of the sixth year of age to the end of the thirteenth. The instruction may be given either in secondary schools, public or private, or in public or private elementary schools, or at home by the father or by one whom he may have chosen for the purpose.

[1] Translated from the author's manuscript, by Dr. F. L. Luqueer, Principal of Public School 110, Brooklyn, N. Y.

A municipal school commission[2] in each commune, for Paris in each mayoralty, has to see that the children regularly attend the schools in which they are registered. Every year it files with the mayor a list of the children from six to thirteen years of age, and so subject to school requirements. If the attendance of the pupils in the public schools falls below the standard, of if it is not clear that they receive elsewhere, either in a private school or at home, the education prescribed by the law,[3] the school commission summons the parents to appear before it, repeats the text of the law, and bids them conform to it. In case the parent, the tutor, the guardian with whom the child is placed, or, in general, the person who is responsible for his education, refuses to appear before the commission, the name of the person is posted for fifteen days, or a month, at the door of the mayor's office. If during the twelve months following the first summons the responsible person becomes guilty, either by negligence or purposely, of a like infraction of the law, he is open to the same penalty. In case of a second summons, the commission may refer the offender to the justice of the peace, who may sentence him to a fine of from one to fifteen francs and to five days or more imprisonment.

Children who are taught at home must each year, after the end of the second year of the required instruction, be examined in the subjects studied by children of the same age in the public schools. If the child's instruction is deemed insufficient, and if no valid excuse is given the commission, the parents are obliged to place their child in school; public or private, as they may prefer. If in the course of a week they have not notified the mayor of their decision, the child is assigned from the mayor's office to a

[2] It is composed of the mayor (who is president), of one or more cantonal delegates, and of members named by the municipal council, in number equal to one-third or more of the members of the council.

[3] The directors of the public and private schools must keep a daily register, showing the presence or absence of pupils. Each month they must send to the mayor and to the primary-school inspector an abstract of this register, indicating the number of absences and the alleged causes.

public school. Wherever the character and the condition of the family are a guarantee the commission contents itself with the work done at home, provided that attestation is made by the father or by the tutor of the child that the work is the actual performance of the child himself.

Public elementary education is given, (1), in the nursery schools (*écoles maternelles*) and in infant classes; (2), in elementary primary schools; (3), in the upper primary schools and in the classes of upper primary instruction annexed to the elementary schools and called supplementary courses; (4), in the manual-training and apprenticeship schools (trade schools). The elementary primary schools are the only ones required by the law for each commune. When the commune numbers more than five hundred inhabitants it must have, in addition to the boys' school, at least one girls' school; unless, as may happen, the departmental council[4] has authorized a mixed school instead of the special one.

Paris has all four kinds of schools named above. The nursery schools, which have replaced the old day-nurseries or asylums, are thus defined by the decree of January 18, 1887:

> The nursery schools are schools for primary instruction, in which the young children of both sexes shall be nurtured physically, intellectually, morally. The children may be admitted to these at the end of the second year of age, and may be retained until six. These schools are managed exclusively by women. The instruction comprises, (1) games and graded exercises, accompanied sometimes by song; (2) manual training; (3) the first principles of morality; (4) knowledge of common objects; (5) language exercises, recitations, and the like; (6) the elements of drawing, of reading, writing, and arithmetic.

[4] This is composed of the prefect (president), of the academic inspector (vice president), of four general councilors chosen by their colleagues, of the director of the men's normal school, and of the directress of the women's normal school, of 2 men and 2 women teachers, chosen by their colleagues, and of 2 inspectors of primary education appointed by the minister. For matters of dispute or of discipline affecting private instruction there are 2 members representing this instruction—one lay, the other denominational—elected by their respective colleagues. In the department of the Seine the general councilors number 8, the primary inspectors 7, the members elected 14.

In Paris there are 143 nursery schools, having 537 classes and attended by 23,801 children.

The public nursery schools are open, in the Department of the Seine, from March 1 to November 1, from seven o'clock in the morning to seven at night; from November 1 to March 1, from eight in the morning to six in the evening. They are closed, in addition to Sundays and legal holidays, on the day after All Saints', on December 31 and January 1 and 2, on Shrove Tuesday, on Mid-Lent, on the communal fête days, on the day after the national holiday, and for ten days at Easter. Each nursery school has at its head a directress, assisted by one or more adjunct teachers.

For appointment as adjunct teacher in a nursery school an elementary certificate (*brevet élémentaire*) is essential; to be appointed directress one must have a certificate of pedagogic ability (*certificat d'aptitude pédagogique*). The candidate for the elementary certificate must be at least sixteen years of age. The required examination calls for dictation, a page of penmanship, an exercise of French composition, a problem in arithmetic and in the metric system, a free-hand drawing of some common object, some needlework, oral questions on arithmetic and the metric system, the elements of the national history and civics, the geography of France, and the most elementary notions of the natural and physical sciences.[5]

The candidate for the certificate of pedagogic ability must be at least twenty-one years of age; she must have the elementary certificate, and at least two years of successful practice in public or private school. The tests consist of a paper in French on some fundamental topic of education, a class conducted by the candidate in a public primary school (nursery school or girls' school) in the presence of the examiners, a criticism aloud of the monthly exercise books,

[5] The examination for the elementary certificate is the same for male and female candidates, save that, for men, the free hand-drawing is replaced by plan, section, and elevation of some easy object, and the needlework by simple gymnastic exercises.

written by the pupils, and finally a series of questions upon matters relating to the conduct and administration of a nursery or primary school, and to matters of practical pedagogy.[6]

The teachers of the nursery schools are classed as probationary teachers (*institutrices stagiaires*) and as titulary teachers (*institutrices titulaires*). The probationary teachers instruct by virtue of appointment by the academic inspector (at Paris by the director of primary instruction of the Department of the Seine). The titularies are appointed by the prefect,[7] upon the nomination of the academic inspector. They are chosen only from those probationary teachers who have obtained the certificate of pedagogic ability and are on the eligible list made by the departmental council. A titulary teacher may be dismissed by the prefect alone, but only at the instance of the academic inspector and upon advice of the departmental council. And even then there is opportunity for the teacher to appeal to the minister of public instruction. The license with which the probationary teacher is provided may be withdrawn by the academic inspector, upon advice of the primary inspector. In addition to the revocation, teachers of the nursery schools are open to the following disciplinal punishments: a reprimand pronounced by the academic inspector; a censure pronounced also by the academic inspector, but only upon the advice of the departmental council, and a temporary or a permanent interdict to teach. The interdict is pronounced by the departmental council; but the functionary who suffers it may appeal to the upper council of public instruction.

The scale of salaries paid teachers in the nursery schools is the same as that of the primary school for girls. The salaries for primary instruction have been fixed for the whole

[6] The tests are the same for men and women candidates.

[7] The prefect of the Seine is at the same time mayor of Paris; or rather, more accurately, Paris has no mayor; the functions of a mayor being performed by the prefect. He is, then, at the head of the administration both of the department and of the commune.

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of France by the laws of July 19, 1889, and July 25, 1893; but Paris is under a special régime fixed by the decree of August 20, 1892, defining the general public administration—a decree which the law of 1893 left intact in all essential features. The probationary teachers form in Paris a separate class. They receive a salary of 800 francs and an indemnity for residence of 500. The adjunct titulary teachers are divided into five classes, and receive respectively salaries of 1000, 1200, 1400, 1500, and 1600 francs, to which should be added an indemnity for residence of 500 francs for the fifth class, of 600 for the fourth and third, of 800 for the second, and of 1000 for the first. The directors are divided into four classes, all receiving a salary of 2000 francs, to which must be added an indemnity for residence of 1000 francs for the fourth class, 1300 for the third, 1600 for the second, and 2000 for the first. This is to say that the teachers are divided into ten classes, with salaries ranging from 1200 to 4000 francs. Passage from one class to another may take place only after three years' experience in the class below. Promotions occur once a year, and are made by the prefect of the Seine at the instance of the academic inspector. The probationary teachers, the adjunct titularies, and directors are entitled to a lodging, or to an equivalent compensation which is fixed, for Paris at the sum of from 600 to 800 francs (decree of May 25, 1894) for the probationers and the adjunct titularies, and at 800 francs for the directors. The above figures are increased one-fourth for widowed teachers with children, and for the divorced titulary teachers who have one or more dependent children. Every directress is entitled to a lodging having at least a kitchen, a dining room, and three rooms with fire; every titulary and probationer to a lodging of two rooms, one having fire, the other being a kitchen (decree of October 25, 1894).

The directress of a nursery school teaches one of the classes of the school in her care; she is the general administrator; and has charge of the school's relations to the

families and to the central office. She exercises over her staff of teachers a sort of surveillance, pedagogic and disciplinary; but she has no absolute authority; that is, she must retain her assistant teachers, provided it does not please a higher authority to transfer them to other positions. The teachers are thus protected from any excess of arbitrary power on the part of the directress. Unless there has been open infraction of the rules—infraction which may be reported to a higher authority—the directress is altogether unauthorized to bring the teachers to her views or to influence them otherwise than by persuasion. Our system gives the teaching force the maximum of independence, but does so perhaps to the detriment of the unity of view and spirit which should reign among the teachers of a single school.

In addition to the corps of teachers, each nursery school has a janitor and one or more women servants. The janitors are named by the prefect. The servants are chosen by the directress, their appointment being ratified by the inspectors. They receive uniformly 1000 francs a year. They must keep the school premises in perfect order, must watch the ventilation and heating of the classrooms, and must hold themselves constantly in readiness to aid the directress and her teachers in the necessary care of the children.

The budget of expenses for the nursery schools of Paris for the year 1896 has been fixed at 2,467,898 francs; of which 1,935,400 francs are for salaries; 317,000 francs for lodgings and for the building fund; and 215,498 francs for materials. This latter item is distributed as follows: heating and lighting, 79,200 francs; care and renewal of furniture, 59,959 francs; study, material, rewards, and annual prizes, 72,748 francs. This budget is made upon a calculation, for each child enrolled, of 1 franc 40 centimes for the class furniture, 60 centimes for rewards, 20 centimes for the annual prizes, and 2 francs 40 centimes for heating and lighting.

Between the nursery schools and the elementary primary

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schools there is another grade of school: the infant classes and schools. The infant schools are schools open to children of both sexes from the fourth year of age to the end of the seventh. Instruction is given by women. There are now sixteen infant schools in Paris, with 1949 pupils gathered in 58 classes. They are attended only by boys; and have recently been named elementary schools for boys (*écoles élémentaires de jeunes garçons*). No more schools of this type are now created; they being replaced by infant classes annexed to elementary primary schools or to the nursery schools. The programme in use in the schools of this kind is the same as that of the nursery schools.

The elementary primary schools fall in two classes: the boys' schools, in which the instruction—save only in the infant classes—is given by men; and the girls' schools, in which the instructors are women. In some communes, however, there are mixed schools; and in these the teachers must be women (law of October 30, 1886). In the boys' school women may be adjunct teachers, provided they are wife, sister, or relative in the direct line of the director of the school.

Children are admitted to the primary schools from the ages of six to fourteen. Beyond these limits their admission is dependent upon the authorization of the director of primary instruction. The classes must be in session three hours in the morning and three hours in the afternoon. The morning session begins at 8.30; the afternoon at 1. They are broken by a recess of fifteen minutes. The holidays are the same, or nearly so, as in the nursery schools; with the addition, however, of Thursday. The date and duration of the vacations are fixed each year by the prefect in departmental council. Ordinarily they occur in the months of August and September (law for the public schools of the Department of the Seine, November 9, 1889).

The programme of elementary primary instruction comprises instruction in morals and in civics, reading, writing, the French language, arithmetic (including the metric sys-

tem), history and geography (especially of France), object lessons, the first notions of science, the elements of drawing, of singing, and of manual training and gymnastics; for the girls, needlework; for the boys, military drill (law of January 18, 1887).

The pupils are classed in three courses: the elementary course, middle, and upper. Pupils generally remain two years in each of the courses. The division of time and the subjects of study in the middle and upper courses of the Paris schools are not quite the same for the boys as for the girls. Domestic economy, for instance, should be noted as being taught in the girls' schools. Each of the courses are graded into several classes.

There has been established by the law of March 28, 1889, a certificate of primary instruction. This is granted after a public examination, open to all children eleven years of age. Those who pass are exempt from further compulsory study.

In Paris there are 182 boys' public schools, attended by 65,595 pupils, forming 1436 classes; and 185 girls' schools, attended by 49,557 pupils, forming 1341 classes.

To be adjunct instructor in an elementary public school, the elementary certificate is needed; to be director there is required, in addition to this, the certificate of pedagogic ability. But in fact the majority of the teachers in the public schools are provided with what is called the upper certificate (*brevet supérieur*) which, however, is demanded only of those who give upper primary instruction.

Candidates for the upper certificate must have the elementary certificate, and must be eighteen years of age. The examination includes a paper on arithmetic (and, for the young men, on applied geometry); a paper on some topic of the physical and natural sciences and their commonest application to hygiene, to industries, to agriculture, and to horticulture; a French paper on literature or on ethics; a drawing from relief; an exercise in either German, English, Italian, Spanish, or Arabic, at the option of the can-

didate; oral questions on ethics, education, general history, and geography, the history and geography of France, arithmetic, bookkeeping (and for the men, algebra, geometry, surveying), physics, chemistry, natural history (for men, agriculture and horticulture), the interpretation of a passage from a French author, and translation at sight of easy English, German, Italian, Spanish, or Arabic (decree of January 18, 1887).

The nominations, revocations, disciplinary penalties in the elementary primary schools are subject to the same rules as those governing the nursery schools. The salaries of women teachers are the same in these two classes of school. The probationary men teachers receive the same salary as the women probationers. The adjunct teachers are divided into five classes, for which the salaries are respectively 1000, 1200, 1500, 1800, and 2000 francs. To this should be added an indemnity for residence of 800 francs for the fifth class, of 900 for the fourth, third, and second, and of 1000 for the first. The directoral instructors are divided into four classes, receiving uniformly a salary of 2400 francs. To this there is added an indemnity for residence of 1000 francs for the fourth class, of 1300 for the third, of 1700 for the second, and of 2000 for the first. There are thus ten classes of teachers, with salaries ranging from 1300 to 4400 francs.[8] Lodging is also provided, or an equivalent indemnity. As regards promotions of teachers, the regulations of the nursery schools obtain also for the elementary primary schools. The function of the directors and the limits of their authority are the same in both these classes of school. The directors of elementary primary schools having more than five classes may be relieved of charge of a class and may devote themselves solely to their administrative duties, to educational direction and supervision. Drawing, singing, and gymnastics are taught by special professors.

[8] I speak here of the teachers only of Paris, whose positions are defined by the decree of August 20, 1892; the provincial teachers are under another rule, fixed by the laws of July 19, 1889, and of July 25, 1893.

The budget of expenses of Paris for the elementary primary school amounted, for 1896, to 13,927,103 francs. The teaching force draws from this 11,221,658 francs; the material (school furniture, supplies used in the courses of domestic economy, care of furniture, school library, heating, instruction in sewing, cutting, and fitting, etc.), 1,140,620 francs; the lodging and building fund, 975,000 francs; the equipment for manual training, 379,825 francs (teachers, 279,825 francs; material, 100,000 francs); the vacation excursions amid the environs of Paris, 100,000 francs; the fresh air fund, 200,000 francs; instruction in singing, 295,950 francs; in drawing, 978,199 francs (teachers, 836,712 francs; material, 141,487 francs. It should be said that these figures include 204,750 francs paid to the professors of adult classes; but we must add that for the two special schools of modeling and of design, Germain Pilon and Bernard Palissy, the city expends a sum of 121,325 francs, of which 93,625 francs are for instruction and 27,700 francs for the material); physical culture (gymnastics, school sports, swimming, gun drill) costs, for the instruction, 215,900 francs; for the material, 9500 francs. All school supplies are given gratuitously to the pupils of the Paris schools. The budget for these supplies is calculated upon a basis of expense of 3 francs for each pupil registered. Text-books are chosen by the instructors from a list drawn up by a commission composed of the primary inspectors and of the professors of the normal schools. This final list is the fusion of the lists filed in each *arrondissement* by the local instructors and revised in special conference (decree June 16, 1880).

Two institutions should here be mentioned which seek to assure attendance at the schools; the school dispensaries and the school kitchens. The dispensaries have as an end the encouragement of school attendance by rewards for studious pupils and by monetary aid to the needy. The legal existence of these dispensaries, whose foundation was due to private initiative, was recognized in the law of April 10, 1867. The law of March 28, 1882, has rendered obligatory

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the establishment of such a dispensary in every commune. Their resources are made up of grants from the commune, the department, and the state; of subscriptions and annual dues of the members of the associations conducting them; the endowments of the founders; returns from collections, conferences, concerts, balls, and entertainments; of gifts and legacies in money or supplies. The funds are used in affording to needy pupils help of every sort; but chiefly clothing, shoes, books, rewards to faithful pupils in form of books, medals, and savings-bank accounts; in defraying the expenses incurred by the organization of the dispensary, of the classes of guards, of the savings banks, and of the school colonies. Finally, they provide deserving pupils either with apprenticeship scholarships or with scholarships in the institutions of secondary education.

The school kitchens distribute wholesome and warm food to the school children; gratuitously to those belonging to poor families, and at low price to those able to pay. These kitchens are managed by the mayor and by the executive boards of the school dispensaries. There are twenty of these in Paris—one in each *arrondissement*. The expenses are met partly by the dispensaries and partly by the city; the contribution of the city for 1896 amounting to 850,000 francs.

The primary instruction is rounded off and completed either in the upper primary schools, or in the classes of upper primary instruction called supplementary courses, which are annexed to the elementary primary schools and are placed under their direction, or in the trade schools. The length of the course of study in the supplementary courses is one year. The upper primary schools have at least two years of study; they are of full grade if they have three years or more. The director or directress of an elementary school to which a supplementary course is annexed must be provided with the upper certificate. This is required also of the adjunct teachers of the upper primary schools. The directors of these last-named schools must

have the certificate of fitness for professorship in the normal schools. The same is required of the titulary professors.

In Paris there are five upper primary schools for boys, one of which, the J. B. Say, has boarding pupils; and two upper primary schools for girls. No pupils may be admitted either to these schools or to a supplementary course, unless provided with the certificate of elementary primary instruction. Tuition and supplies are alike gratuitous. The pupils enter the schools after an examination. The subjects covered by the examination are the same, but with greater detail and depth, as those of the elementary primary instruction. Then follows a course embracing something of French literature, of general history, of commercial and industrial geography, of common law and political economy, of accounts, modern languages, mechanical drawing, commercial arithmetic. The boys have practice in iron- and wood-working; the girls in needlework, cutting, and fitting. The detailed programme of the supplementary course is fixed by the director of the school and his assistants under the control of the director of primary instruction, subject to the approval of the minister. The programme of the upper primary schools for boys is made in accordance with a model programme drawn up by the director of primary instruction or by the minister of public instruction; but the greatest latitude within the limits of the law is allowed the school directors. The disposition of hours and of studies, of recitation and recess, is left to the director and his teachers, but is subject to the control of the academic inspector.[9] Directors and professors of the upper primary schools of Paris in very many instances are more highly educated than is required by law. The instructing force includes not a few bachelors, licentiates, masters (*agrégés*) of secondary education, and doctors. The directors and professors are named

[9] The division of study subjects in the upper primary schools for girls has been fixed by the decree of August 18, 1893. Every liberty, however, is left the directress and the professors to modify, subject to the approval of the academic inspector, details of the published programme.

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by the minister of public instruction; the special teachers (of drawing and modeling, of manual training, of modern languages, of singing, of agriculture, of military drill) and the adjunct instructors are appointed by the prefect at the instance of the director of primary instruction (law of October 30, 1886). The director may be assisted in his work by a general supervisor, who, in a school of more than 1000 pupils, is entitled prefect of studies. He is appointed by the minister. The special teachers must be provided with diplomas in their subjects, issued under university regulations.

The directors receive a salary of from 5000 francs minimum to 7000 francs maximum. They enjoy, besides, an indemnity for residence of 2000 francs, and receive annually for fixed expenses (fare, etc.) the sum of 1000 francs. They are entitled to lodgings. The general supervisors receive a salary of from 3000 to 5000 francs. They are paid, in addition, 1000 francs in schools of less than 1000 pupils, and 2000 francs in others. The professors are divided into five classes; their salaries are respectively 1800, 2100, 2400, 2700, and 3000 francs; to which must be added an allowance for residence of 2000 francs and an allowance equivalent to the cost of lodging. They are required to teach sixteen hours a week. For extra hours there is a compensation allowed which must not exceed 300 francs a year. The adjunct instructors are divided into five classes, with salaries of 1100, 1300, 1600, 1900, and 2100 francs; they are entitled, besides, to 1500 francs, which take the place of any indemnity for residence or lodging. The special teachers have an annual salary, calculated at the rate of one lesson of one hour a week, as follows: modern languages, drawing, and accounting from 250 to 350 francs; calligraphy and singing from 200 to 300 francs; gymnastics and military drill from 150 to 250 francs; manual training from 100 to 150 francs (decree of August 3, 1890).

The budget for the upper primary schools of Paris amounts, for the boys' schools to 913,479 francs 66 centimes

(salaries, 807,179 francs 66 centimes; material, 106,300 francs); for the girls' schools to 320,898 francs (salaries, 280,738 francs; material, 40,160 francs). To these figures should be added the budget for the school J. B. Say, which is partially a boarding school and enjoys a special grant. This amounts to 332,531 francs 25 centimes for instruction and 264,410 francs for material. There must still be added 30,000 francs for municipal scholarships in this same school, 39,000 francs for municipal scholarships in the upper primary schools for boys and for girls, and 12,000 francs for traveling scholarships.

The upper primary schools are essentially intended to prepare the boys and girls for industrial and commercial careers; and, more precisely, to furnish, after more or less of technical training, foremen and directors to the shops and manufactories, and clerks for commercial houses, banks, and the public service. In connection with the upper primary schools should be mentioned a municipal institution of a mixed character, Collège Chaptal, at once a model upper primary school and a college of modern secondary education—an education based upon the teaching of the mathematical and natural sciences, of the French and other modern languages, of the various branches of philosophy, of history, and of geography. This college is attended by day pupils, by semi-boarders, and by boarders. Its budget amounts, for salaries, to 647,650 francs, and for material to 449,400 francs. As in the case of the J. B. Say school, the boarders pay; but the city has devoted, in the budget for 1896, 86,700 francs for boarding scholarships. Only the upper primary studies are gratuitous; the pupils who continue their work further, or push on into the secondary courses, having to pay tuition; but the city expends annually a sum of 14,000 francs in scholarships for day pupils.

The manual apprenticeship schools or trade schools were organized by the law of December 11, 1880, and by the decree of March 17, 1888. These schools, in which may be enrolled only the children who are provided with the certifi-

cate of primary instruction or those at least thirteen years of age, assure to their pupils at once both a completion of their primary studies and a technical instruction fitting them for some manual trade. The directors, men or women, are appointed by the minister of public instruction with the approval of the minister of commerce. They must have the certificate of fitness for professorship in the normal schools. The professors and adjunct masters must have at least the upper certificate. They are appointed under the same regulations as the directors. Neither directors nor professors may be removed or discharged save by the minister at the instance of the academic inspector and upon advices from the departmental council. The technical instructors are chosen from overseers, foremen, and workmen. They are appointed by the prefect from an eligible list prepared by the commission which is appointed to the charge of the school by the municipal council and in which are a representative of the minister of commerce and one of the minister of public instruction. The course of study covers generally three years; it may take four. The salaries correspond to those of the upper primary schools. In Paris there are three of these trade schools for boys: (1) l'École Diderot, with a budget of 160,741 francs 65 centimes (salaries, 95,741 francs 65 centimes; material, 65,000 francs), which teaches chiefly iron- and wood-working; (2) l'École Boulle or École du Meuble, with a budget of 254,742 francs (salaries, 149,892 francs; material, 104,850 francs); (3) l'École Estienne or École du Livre, with a budget of 223,018 francs (salaries, 141,488 francs; material, 81,530 francs).

In connection with these institutions there may be mentioned the municipal school of industrial physics and chemistry; although the studies here are much more advanced, and they prepare, though under the same direction as the primary instruction, experts rather than shop foremen. It expends for its salaries 140,200 francs; for its material, 131,000 francs.

There are six trade schools for girls in Paris, for which

the budget amounts to 394,090 francs for salaries, and to 174,475 francs for material. In these the girls are prepared for commercial life and for various manual trades; in particular, for confection, for dressmaking, and for the art industries such as engraving, china decoration, fan painting, etc.

The expenses of primary instruction are apportioned between the state, the department, and the commune. The salaries of the teaching force are paid by the state; the care of the buildings of the normal schools and of those of the academic administration is at the charge of the department; the indemnities for residence, the care of the primary school buildings, the lodging of the masters or equivalent indemnity, the heating and lighting, salaries of servants, the acquisition, renewal, and care of the school furniture, and the study material—these are at the charge of the commune. The remuneration of the technical instructors of the trade schools is made jointly by the department and commune (law of July 19, 1889). The state, having assumed the payment of instructors' salaries, collects in each commune a general tax of 8 centimes in addition to the direct tax of 4 centimes, which takes the place of the 4 centimes formerly collected from the department and the 4 collected from the commune to meet the cost of compulsory primary instruction. The state must defray the expenses, beyond those met by the 8-centime tax, by resources supplied by the general budget. On the other hand, in cities of more than 150,000 inhabitants, the contribution of the state does not in any case exceed the amount accruing from the 8 centimes, and at Paris it is limited not to 8 but to 4 centimes. Accordingly this state aid to Paris does not amount to more than 2,660,000 francs upon a total budget of expenditure for primary instruction of 26,412,689 francs.

The teachers of the various primary schools are trained in the primary normal schools. These schools, of which there generally are one for men and one for women in each department, have instructors the majority of whom are

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graduated from the upper primary normal schools of St. Cloud and of Fontenay-aux-Roses. To be admitted to a primary normal school one must be between sixteen and eighteen years of age and must be provided with the elementary certificate. The student teachers are admitted to the school after an examination. The normal schools are boarding schools. The course of study covers three years. An elementary primary school and, for the normal schools for women, a nursery school are annexed to the normal schools so that the future teachers may receive a practical training. The student teachers, upon completion of the course, must undergo the examination for the upper certificate. In addition they may present themselves at times fixed by the university authorities as candidates for certificates of ability in the various special subjects. All the women student teachers of the normal school of the Department of the Seine take the examination for the certificate of ability to teach physical culture, and for that of sewing and cutting.

The primary normal schools are managed by a director or directress and an administrative council composed of the academic inspector (president), of four members named by the rector, and of two genera counselors chosen by their colleagues. The budget for the normal school is a departmental one; but the salaries are at the charge of the state.

Although, as a matter of fact, the majority of teachers are graduates of the normal schools, such graduation is not essential to entrance upon the work of public instruction. No condition need be met for appointment to the various positions of which we have spoken other than the conditions of age, of certificated grade, and of experience above mentioned. We have had occasion to speak of the certificate of fitness for professorship in the normal schools. For this there is a special examination, which ordinarily is taken only by those who pass from the upper primary normal schools; but the examination is equally open to those outside these schools. Finally there is a special

examination for the directorship of normal schools, and for inspector of primary schools. Before this examination may be taken, the candidate must be twenty-five years of age, must have had at least five years' experience in a public school, and must have obtained either the certificate of fitness for professorship in a normal school or the literary or scientific degree conferred by college or university. This examination comprises two series of tests: (1), two papers—one on some educational topic, the other on school administration; (2), the exposition of a passage relating to pedagogics, a lesson of one-half hour on some subject of instruction, and the inspection of a school followed by a spoken report.

Since the budget of the normal schools is not a communal one, we shall not give the detailed cost of these schools. To indicate their rank in the hierarchy of primary education it will be enough to mention the salaries of the director and of the directress of the primary normal schools of the Department of the Seine. The director receives from 7000 to 10,000 francs, the directress from 6000 to 9000 francs. Residence is also provided.

To understand the system of inspection over the primary schools, a rapid glance must be cast over the general organization of education in France.

The minister of public instruction, chief of the university, is at the head of the primary education as well as of the other orders of education. Under his immediate authority are four directors charged respectively with primary education, with secondary education, with higher education, and with correspondence and accounts. He is assisted by an upper council of public instruction, composed of members chosen by their colleagues and of members appointed by the Government. This is called upon for advice upon programmes of study, methods of instruction, and disciplinary and administrative measures relating to the public schools. The upper council is, moreover, a tribunal of appeal, constituting a last resort in cases of disciplinary judgments against members of the instructing force.

France is divided into seventeen academies. At the head of each is a rector, who has authority in all educational matters in his domain. He is assisted by as many academic inspectors as the needs of the service demand. An academic inspector is placed in each department at the head of the primary and secondary educational work. In matters pertaining to secondary education and to the pedagogic part of primary education, he is a functionary under the authority of the rector; as regards the appointment of teachers for the primary schools, he is under the authority of the prefect, representing the minister of the interior and set over the general administration of the department. In each department there is a departmental council of primary instruction, whose composition we have already described; it is charged with the duty of determining the number, the nature, and the location of the schools to be established in each commune, of fixing the number of adjunct instructors in each school, of directing the pedagogical organization, of regulating the various orders of schools, and of watching over the carrying out of the programmes, rules, and methods; it has, in addition, various disciplinary functions (law of October 30, 1896; decree of January 18, 1887).

The academic inspectors are assisted by the inspectors of primary instruction appointed by the minister of public instruction and placed under their authority. There are seventeen such inspectors in Paris. They are divided, in the Department of the Seine, into five classes and receive salaries respectively of 6000, 6500, 7000, 7500, and 8000 francs. They receive, in addition, a compensation from the department of not less than 300 francs. All the administrative and pedagogic work of the various classes of instruction is under the care of general inspectors of public instruction, who are direct representatives of the minister.

The inspection of the primary schools, public or private, is made, (1) by the general inspectors of public instruction; (2) by the academic rectors and inspectors; (3) by the

inspectors of primary education; (4) by members of the departmental council, chosen by their colleagues for this service; (5) by the mayor[10] and the cantonal delegates. The cantonal delegates are citizens chosen by the departmental council to care for the moral and intellectual needs of the children, as well as for the material condition of the schools. The departmental council appoints one or more delegates in each canton, and assigns to them the oversight of particular schools.

The inspection of the nursery schools is made concurrently with the above-named authorities by general inspectresses and by departmental inspectresses of nursery schools. No one may be appointed departmental inspectress unless thirty years of age, and with three years of service in public or private education, and unless provided with the certificate of ability to inspect nursery schools. The examination for obtaining this certificate includes, (1) a paper on a pedagogical topic relative to the nursery schools; (2) a paper on the hygiene of the nursery schools; oral questions on these two subjects, and on the regulation and administration of the nursery schools; and finally, an inspection of such school, followed by oral report. No one may be appointed general inspectress unless provided with the above certificate, and unless thirty-five years of age and with five years' experience in public or private teaching. The inspectresses of both these orders are appointed by the minister.

The sanitary condition of the schools is inspected by physicians of the commune and department. This inspection annually costs Paris 100,800 francs (budget of 1896). There are also inspectors of drawing, of singing, of physical culture, of manual training, of accounting, and of modern languages. In addition to the inspectors whose care is the

[10] In Paris there is no central mayoralty; nor does the president of the municipal council exercise administrative functions. The functions of mayors of the other French communes are, in Paris, shared by the prefect of the Seine and by the mayors of the 20 municipal *arrondissements*. These are officers appointed by the government and not elected by the people. Their services, however, are gratuitous as are those of the elected mayors.

pedagogic side of the work, Paris has created a body of inspectors for the control of the materials and of the money appropriations. This administrative inspection figured in the budget of 1896 at a cost of 63,900 francs. It should be noted that the expenditures for primary education, like the other public expenditures, are under the higher control of the inspectors of finance.

This, then, in outline, is a sketch of the Paris schools. But one would have a very partial idea of the city's generous policy, were he to suppose that its efforts were limited to the province of primary education for children. If space permitted, much more might be described—the primary instruction for adults, courses in modern languages, in accounts, in drawing, that are given in the evening; the higher instruction for boys and young men given by Collège Rollin, an institution of classical, secondary education; the teaching of the deaf and dumb and of the blind; the chairs founded by Paris at the Sorbonne; the evening lectures for the people; the grants to various schools of higher learning, etc. Nor should the private institutions of primary instruction which are aided by the city be left unmentioned; nor those institutions, outside the school but in harmony with it, which advance education (*comités de patronage, associations d'anciens élèves, patronage démocratique de la jeunesse française, ligue de l'enseignement,* etc.). There is material for an interesting work in the study of the multiform institutions that seek to supplement the education officially provided by the schools of primary instruction—instruction which is indispensable to the man and to the citizen, and which the law of March 28, 1882, has rendered obligatory for all the youth of France.

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II

THE RELATION OF EDUCATION TO VOCATION

The educational system of this country was built upon an exceedingly narrow foundation. The instruction of the masses had made little headway in the mother country, and here the stream did not rise higher than its source. Furthermore, the life of the pioneer was not favorable to intellectual training. The necessity of providing for himself and his own food, clothing, and shelter made exacting demands upon his time and energies. Books were few, communication was slow, and so the early settlers were often both isolated and illiterate. It should always be remembered, however, that life in a new country is intense. There are difficulties to be overcome, dangers to be met, and pressing wants to be supplied. Experience under such conditions is, in an important sense, education. Pioneers were often not only poorly equipped with the means of comfort and convenience, but were even wanting common tools and implements of labor. They had to be at one and the same time architect, builder, inventor, and mechanic. While the spinning wheel and loom occupied one corner of the settler's cabin, the bench, the anvil, and the forge were likely to be seen in another corner. In the varied and interesting round of duties which followed each other in close succession through all seasons of the year, every member of the household had his part to perform. There was little recreation or dissipation, and nothing of idleness; but there was independence and freedom. As communities became large enough for men to pursue special mechanical trades, it was permitted them to work as many hours as they pleased and receive any rate of wages their abilities could command. So strong is the tendency of man to react upon his environment, to become disci-

plined in mind and character by the putting forth of energy and the overcoming of difficulties, and there is such educational potency in the diversified industrial life of which I am speaking, that we are never surprised to read of the peculiar intelligence and stamina that our fathers possessed. When we think of the problems they solved and of the victories they won; when we remember how they did their own thinking without the aid of newspapers or books, how they adapted means to end in the accomplishment of great undertakings, we are perfectly sure that many of us who live in these days of so-called sweetness and light are but dwarfs, while they were giants.

But, as I have before intimated, as far as schools were concerned, or the artificial means of education, our country in its younger days had little to offer. To read and write and reckon were accomplishments useful in those days; these, therefore, constituted the school curriculum. Considered as mental training, what was obtained in the schools amounted to but little. Education in its best sense was acquired on the farm and in the shop, where the mind was ever alert and active, and where the trained hand was its obedient servant.

Let me say, in passing, that the so-called higher education, engrafted here from the English universities, was relatively as narrow as that of the common schools. We respect it as we do the common school, not so much for what it was, or for what it accomplished in the early days, as for what it is now and for what it is likely to become in the working out of our high destiny as a nation. While we often go back and draw important educational lessons from the industrialism peculiar to pioneer days, we get few suggestions from the school and college of those times that are pertinent to the new conditions under which we are now living.

In order that we may understand how backward education has been in recognizing the social changes accomplished during the present century, and the pressing needs occasioned thereby, it is only necessary to recall what we were, how we

lived, and how we transacted business one hundred years ago, and then to contemplate our country as we see it to-day, leading the world in almost every phase of industrial and commercial activity. Our development has been unprecedented, so that the world has stood and wondered. By a combination of favoring circumstances our national domain was extended from the Atlantic to the Pacific. All this vast territory has been rapidly settled, and its virgin soil has teemed with fabulous crops of food products. Farmers and mechanics of Europe have flocked hither until some nationalities are nearly as largely represented here as in the old country. In the meantime the age of machinery has been ushered in. While the West with her cheaper methods of production, by means of the railroad, was filling our markets with corn, wheat, and beef, enterprising men in New England were building mills and factories upon the banks of every river and mountain stream. The vast mineral resources of the country have been discovered and utilized. The railroad, the steamship, the telegraph, and the telephone have made us all neighbors and have brought us within speaking distance of every part of the globe. Inventive genius has supplied every craft with labor-saving machines, thus disbarring many forms of labor and compelling many artisans and mechanics to seek new adaptations of their skill.

Because of this revolution in our material affairs many political and economic problems have arisen, in the settling of which our governmental machinery has been strained to the utmost. Grave moral issues have tested our loyalty and manhood, and have cost us dearly in treasure and in blood.

Now it is not unusual for the optimistic observer of our national greatness and prosperity, wishing to find causes therefor, to say that it is largely due to our excellent system of public education. There is a certain sense in which this is true. It is more true of the last twenty years of educational effort than of what preceded. As one who believes that teaching and other educational forces constitute the most generic, the most potent and the most essential thing

in the world; as one who believes that our Lord and Master was essentially a teacher and not a preacher; that he used educational methods in all his work, and gave the stamp of his divine approval to those methods, and that the Church of the future is going to use such methods more and more, I am not the one to disparage or minimize the importance of the work performed by American schools in the past in moralizing, in disciplining, and in instructing the young. I do say, however, that in a certain important sense our nation has become great and influential, not by reason of public education, or of college education, but in spite of it. Or, putting it otherwise, there is a sense in which our country has failed of her opportunity, and is behind the spirit of the present age, because our educational machinery from top to bottom has been old-fashioned, poorly constructed, and poorly organized, and has been able to go only at such a low rate of speed that there has always been too little of the finished product and far too much of the raw material. As I review the history of the past fifty years I can think of no form of activity that has been so slow in adapting itself to new conditions as has teaching. Go into a typical American house, whether in city or country, and you see something quite different from what was there half a century ago. The food, the furniture are quite changed. You will see books and newspapers and possibly works of art and musical instruments. Go into a modern hospital and see the perfect appointments for treating the sick and the injured. Follow the physician and observe that his methods are diametrically opposed to those in vogue a generation ago. Notice the newer conception of what crime is and how it is to be cured or prevented. Consider what the State and the municipality do for public health, safety, and convenience. Surely the world has moved rapidly, and with it have gone philanthropy and civic progress. Even theology and the administration of justice are endeavoring to keep up with the procession. But as compared with some of those things mentioned above, education has been slow, inexcusably slow.

Many and many a child in New England, when the schools opened in this year of our Lord 1896, was sent to the same little dingy schoolhouse where his grandfather went before him, to sit upon the same hard seats, to stare at the same bare and dingy walls, and in too many instances, I regret to say, to recite what he has committed to memory from a book much of which means little to him and the learning of which can do him but little good. This is doubtless an extreme picture, but I am assured by persons holding official positions that it is true to fact. Between this condition of things and the best types of the modern school found in our large towns and cities, there are all grades of mediocrity and excellence. But the significant fact is the tenacity with which we have clung to the methods of the pioneer school. It cannot be denied that the three " R's " have reigned supreme until within recent years. To be sure, the course of study was gradually broadened by the introduction of geography, and here and there a little history and science; the methods pursued, however, were so abstract and literary that the child was not trained to observe, to appreciate, or to reason. Sound educational theories and some that were even startling, from such thinkers as John Locke, Comenius, Rousseau, Pestalozzi, and Froebel, had been handed down to us, but we were too much occupied in organizing the rapidly increasing masses of children in our towns and cities into so-called graded schools, to devote much time to the finer problems of nurture and instruction. The kindergarten was on exhibition here and there as a curiosity, but teachers smiled at it, and few parents wanted it, inasmuch as it did not teach the children to read and cipher. The wonderful possibilities of childhood as regards the development of faculty and the accumulation of the elements of all knowledge, as food for the nurture and enrichment of the immortal mind, these were a sealed book to most people; and while they were apprehended and preached by certain prophets, they made little headway until recently in reforming actual practice.

But this is not all; not only in a general sense have we been content to tithe mint, anise, and cumin while neglecting the weightier matters of the law, but we have failed in arranging our educational courses to recognize one of the most vital factors in any civilized society, viz., vocation. As the home is the unit and the very soul of our social order, as everything that is best and most effective in forming habits and opinions and establishing character centers there, and as it is the birthplace and seat of those pure affections and high aspirations that sweeten and ennoble our mortal life, so, it must be conceded, vocation is its chief corner stone; or, to use a stronger and a better figure, it is its very heart's blood. Vocation is a good deal more than the opposite of idleness. It is labor dedicated to the highest purposes, to wit, the cherishing of the family and the home. Abraham leading his flocks over the rich pastures of Mesopotamia, Plato teaching in the groves of Athens, Michael Angelo creating those immortal frescoes in Rome, and Edison toiling with miraculous success in his laboratory, are all great in honor and esteem because, faithful to their vocation, they accomplished great deeds. No less worthy of respect is the honest farmer or mechanic of the present day, the fruits of whose labor minister to the support of a well-ordered home and insure happiness to wife and children. Whether or not labor was intended to be a curse, as some have insisted on claiming, certain it is that it becomes the greater blessing only when it operates under the hallowing influence of domestic love.

As vocation is the chief support of the home, and tends to develop individual character and manhood, so it clearly underlies the welfare and prosperity of the nation. When nations are at war there is always distress, because men are prevented from pursuing their ordinary vocations. We see in Cuba to-day a terrible instance of industrial prostration; suffering and death are everywhere. When for any reason there is depression in business and the great wheels of industry are silent, so that men are thrown back upon them-

selves with no chance to earn their accustomed wage, then a shadow is over the entire community. I read to-day that, by a single failure in New York, more than two thousand people are suddenly deprived of the privilege of pursuing their vocation. Under present conditions, few of them will easily find lucrative employment. What this means of trial, anxiety, and deprivation for fathers, mothers, and children, is only a chapter in that unwritten tragedy that is being enacted all about us. When such things happen, not only the state and the nation become poorer, but there is less of patriotism and faith in the hearts of the citizens. The best Christian is not an hungry one, and the truest patriot is not he who is waiting for a chance to toil. Mr. W. H. Mallock of England, in his recent work on *Labor and popular welfare*, emphasizes this idea as follows: "Give a man comfort in even the humblest cottage, and the glow of patriotism may, and probably will, give an added warmth to that which shines upon him from his fireside. But if his children are crying for food, and he is shivering by a cold chimney, he will not find much to excite him in the knowledge that we govern India. Thus, from whatever point of view we regard the matter, the welfare of the home as secured by a sufficient income is seen to be at once the test and the end of government; and it ceases to be the end of patriotism only when it becomes the foundation of it."

Considering, then, the great importance of vocation in determining the quality of manhood and citizenship, the question "What ought education to do in this connection?" is certainly a pressing one. It becomes especially so when we consider the social and industrial changes during the past fifty years to which I have already alluded. Time will permit me only to enumerate in a most cursory way a few points in which we are especially deficient. There is little or nothing in our school curriculum respecting the theory of the mutual interdependence of capital and labor. Our high schools, which include on an average about five per cent. of our boys and girls, are some of them devoting a

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fraction of time to the subject of economics. But even there, so far as I know, there is nothing of industrial history, and no study of the causes that have led to the present industrial unrest. And in our common schools, where the other ninety-five of our children attend, there has been no attempt to open their minds to truths of this sort. Had one-half of the energy and legislation that has been spent in vainly seeking to have scientific temperance taught in our schools been applied in teaching vocation in its industrial, social, and political bearings, a far greater good would, in my opinion, have been accomplished. Our schools may not be able to prevent strikes, but the school and the Church may unite in such a wholesome exposition of the Golden Rule and that greatest of all commandments, "Thou shalt love thy neighbor as thyself," as will give both employer and employed new standards for the settlement of their difficulties. The ideal of industrial co-operation, which has been successfully reached in some instances, will not become a universal fact until it is developed by a process of education.

We hear about the desirability of recovering the lost arts of Egypt, of India, of China and Japan, traces of which are brought to light by the antiquarian. If we examine the industrialism of from two to four hundred years ago, as it existed in England, Belgium, and Germany, we find arts that are lost to us. A boy was permitted to be an apprentice to a respectable trade and afterward to take his place in society as a thrifty, enterprising mechanic with a good degree of independence. He was often at the same time the producer and the merchant of his wares. He was not tied down to a dead level of opportunity as is done by the modern trade union. If he possessed artistic skill, he could add beauty to utility in such a way as to impart high value to his product. He had every incentive to make common utensils as beautiful as possible. Hence those artist artisans of the earlier centuries, for the spirit in which they wrought and the wondrous charm of their execution will ever be famous. Go to Nuremburg and behold those marvelous

fountains, monuments, and buildings, and see everywhere the touch of the artist's hand who, "Being dead, yet speaketh," and think what the city must have been, when to all this beauty of form there was added the coloring of such artists as Albrecht Dürer and his remarkable school. There were trade organizations in those days, but how different from those of the present! The ancient guilds existed in order that craftsmen might help each other. The sick were visited. When feasts were held wine and food were sent to those absent. The poor were relieved. Funerals were taken care of by the brethren. . In Charles Reade's *The cloister and the hearth*, we find a charming picture of the life and homes of craftsmen in the German cities. Says Gerade, writing to his sweetheart, "The workmen of all the guilds are so kind and brotherly to one another and to me. Here, methinks, I have found the true German mind, loyal, frank, and kindly."

Vocation then held something of honor and dignity. Skilful craftsmen were proud to be known by their trade, and it is no accident that a large number of our English surnames tells us what crafts our fathers pursued. Now I submit that we cannot claim too much for our public schools until they aim to bring back to the consciousness of our youth a sense of the dignity of labor of whatever sort, and the brotherhood and mutual dependence of men in all their industrial relations.

Another respect in which the schools have been backward has been in failing to recognize the scientific tendencies of the age. The Greek culture and the humanities, which have been the backbone of our higher education, have been a sort of saving grace in our American life during a period that was necessarily formative and materialistic. The lower schools, also reflecting this literary idea, gave a training which, though narrow and insufficient, led to good habits. But with the development of machinery have come numberless applications of science in the line of physics, mechanics, and chemistry. Every factory is in a certain sense a laboratory

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where experiments are continually made, calling for some knowledge at least of scientific ideas. The call for persons trained to do this work has been loud and long, and it is surprising to think how few years have passed since Yale and Harvard provided laboratories for individual work. It is equally strange that in the common schools the provision made for science teaching is very meager. I know of but one grammar school in New England that has adequate accommodations for teaching chemistry and physics. Now all this bears very directly upon the point at issue. To fill respectably the new vocations, men and women need scientific ideas and scientific habits of mind, which only the schools can give. Had it not been for the higher technical schools, and the educated workmen who have come to us from Europe, our industries would have fared badly.

Still another deficiency was revealed to us in the Centennial Exhibition in 1876; a fact too familiar to need repetition. The result of that eye-opening event has been the movement for manual training. While many schoolmasters have been questioning and deliberating, the pressure from without has been so great for something better and broader, that encouraging progress has been made in placing the manual and domestic arts upon an equal footing with book studies. While many high schools have been equipped with manual-training courses, efficient kindergartens have fully demonstrated the educational value of hand-work for young children. The process of leavening is going on in our grammar schools and it is safe to say that within a reasonable time the elements of needlework, cookery, and the use of wood-working tools will be incorporated in all our larger schools. Industrial drawing has long since ceased to be a novelty, and no one questions its value.

All this is being done with an eye to the broad cultivation of the powers with no attempt to teach special trades. At the same time, we should be blind if we did not see that this new education, in which the brain and hand are trained together, will have an important bearing upon the choice

of the vocation and the success therein. At least it may be said that the manual-training idea is destined to serve as a connecting link between the abstract and the concrete; between the world of thought and the world of action. It furnishes a revelation of what real education may do in arousing, interesting, and holding the energies of the average child. If applied to those mentally weak or morally deficient, its effects are still more striking. The teacher, the missionary, and the reformer have found a new weapon, and manual labor is sure to have a large place in all future educational and social work.

But this is not enough. Its results, while excellent in a general way, do not bear with sufficient directness upon vocation. Even if a boy acquires considerable skill in the use of wood-working tools, carpentry is only one of a hundred trades, and, while through manual training the boy's aptitudes are made apparent, and his mind is turned to some particular craft, when he attempts to find his place in the labor market he is comparatively helpless. There is no open door to the position he desires to obtain. The temptations to become a clerk or a salesman to an ambitious American youth are very strong.

This leads me perhaps to the most serious count of all against our educational system, that it does not provide such trade instruction as would enable the grammar-school graduate to enter at once upon the pursuit of a handicraft. I need not enlarge upon the great and pressing need of trade schools. Social changes have brought the bulk of our population into cities, where every idle and shiftless member of the community is a menace to the public peace and welfare. It is indeed pitiful to see our American young men pleading for the opportunity to work, and yet failing to find employment because their hands are untrained. Not only in the city, but in the country also, there is need of special training. The hard times that our New England farmers are undergoing are not due entirely to the tariff, and certainly not to the lack of silver dollars. The soil has become impov-

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erished and needs scientific treatment in order to be made to produce bountifully. Farmers in the East can no longer raise corn and wheat at a profit; but if skilled in the arts of horticulture, and if versed in agricultural chemistry, they may find in their own local markets an abundant return for their labors. Why should not agricultural chemistry be taught in our normal schools? Why should not special schools for young farmers be established to foster our great national industry? Something has been done, by private munificence and by industrial corporations, in producing trade schools. But the time has come when the state must meet this issue promptly and generously, if we are to keep pace with the nations of Europe.

In all attempts to develop a system of trade instruction, one principle should be the dominant motive and guide, and that is, to emphasize the dignity of vocation, and to elevate and bless the American home. One objection is quite sure to be raised—and I should not be surprised if it were to come from craftsmen themselves whose boys and girls are sure to be benefited by this movement—and that is, the danger of the overstimulation of industry, of too many craftsmen and of overproduction. There is an effective answer to that argument, in the truth that, while there may be overproduction in those things that provide for the bare physical wants of mankind, as food, clothing, and shelter, there never has been nor ever will be overproduction in those finer æsthetic products of handiwork that satisfy the spiritual wants of mankind. Works of art, whether in statuary or in painting, in music or in literature, cannot glut the market. Human needs in respect to those things that delight the eye, kindle the emotions, and feed the soul, are infinite. And when I plead for trade schools I want to have the art idea predominant. The outside of the house is well enough. Let us provide furnishings for the inner chambers of the soul. Let the future American artisan have that generous feeling, that deep insight, and that delicate artistic touch that shall lift our common life farther and farther away from what is rude and common and barbaric.

Did space permit, I would speak of hopeful indications as seen in the tendencies of common-school education at the present time. Antipater demanded fifty children as hostages from the Spartans; they offered him in their stead an hundred men of distinction. Jean Paul Richter referring to this, in the first chapter of his *Levana*, says that "ordinary educators precisely reverse the offering." I am glad that this is not true to-day. Teachers and mothers are coming to know that the possibilities of a child for a good and useful life are largely wrapped up in his earliest years. The enriching and broadening of the school life, as it is now being done, the introduction of science, of literature, of art, music, and manual training into every part of the course, is a long step toward that vocational success and happiness which we desire to see.

Let me briefly recapitulate: Education in this country has clung too closely to old ideas and conditions and has not adapted itself easily to new situations. It has been too abstract and general and has not recognized the place vocation holds in the life of the individual and the nation. I have shown that little or no attention has been given to the historical growth of industry or the mutual relations of labor and capital, and that our condition in respect to the independence and happiness of the laborer compares unfavorably with that of several centuries ago. Emphasis has been laid upon the inadequate teaching of science and the consequent failure to meet present demands.

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III

THE CHIEF END OF LABORATORY WORK IN PHYSICS

From 1840 to 1860 there was a remarkable growth of science in all its departments from astronomy to zoölogy. Those who became aware of its character saw the immense importance of it to mankind and took steps for the introduction of the new knowledge into schools, especially those of higher grades, colleges, and academies. In each there was a full curriculum, and the entrance of science meant the retirement or the contraction of some studies already endowed and fortified in places by the practice and theory of education. The momentum of the whole system had to be encountered by anyone who attempted such a change as was seen by a few to be at hand. One of the foremost in this lead was President Wayland of Brown University, who undertook to transform the institution. He could not convince his associates that anything serious had happened among men.

In 1867 Professor Youmans published a book called *Culture demanded by modern life.* It was made up of a series of discourses by eminent men upon the supreme value of a knowledge of science. This work was jeered at and denounced in a most remarkable way by men who had been trained in the way of the old curriculum; nevertheless its influence was felt, and room had to be made for the study of science in the colleges. It was done chiefly by the study of science text-books, supplemented when possible with a few experiments and an occasional visit to a museum. Professor Agassiz at Cambridge was strong enough to conduct a school of a different

type, and, apparently without let or hindrance from Harvard College, set a few young men at work with the material of biologic science, and with microscope, scalpel, and pencil they proceeded to the discovery of truths and the interpretation of them. What became of his pupils is a study worth the while, for there was never such an educational success in this country, and I doubt if there has been one equal to it anywhere else. To the biological laboratory there soon followed a chemical laboratory for analytical work, and chemistry could be studied in its qualitative phases, with a few reagents and test tubes, while here and there some student went farther with a quantitative course. Generally the latter was done by the one who contemplated becoming a teacher, not for the subject itself nor its educational value. It is said that Helmholtz was at the outset a physician and became a physiologist in order the better to employ his art, but physiological questions inevitably ran into physical questions, and he became a physicist in order to understand physiology, and a mathematician in order to apply it to physics. If that order of subjects was true for Helmholtz it is equally true for everybody, and the explanation of all sorts of phenomena, organic as well as inorganic, is to be found in physics, and that fact in itself is a sufficient reason for the study of physics by everybody. Without it there is no science whatever, for psychology itself has lately adopted physical methods, apparatus, and procedures, although it is called physiological psychology. If every physiological question is ultimately a physical question, as is believed to be true, then the new psychology should be called physical psychology, and every tentative hypothesis developed in its working should be made to be in accord with the principles of physics.

In this sense physics is not simply a branch of knowledge. It is the main trunk of all knowledge from which all other sciences are but branches. When this idea is once grasped in its fullness—as it will be, but not until there have been many funerals—the amplest facilities will be made for its

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study and the greatest ingenuity will be expended to make its acquisition easy and attractive.

The end and aim of the physical investigations to-day are to discover the kind of a universe we are in, the make-up of ourselves and our relations to the universe, in order that we may make the most of life because we can adapt ourselves to the nature of things that condition it. It ought not to be forgotten that the advance in knowledge alluded to, that which has necessitated the introduction of science into education, is the very last accomplishment. The colleges and universities provided for almost everything else before they provided a home for physics,—namely, a physical laboratory,—and the very last and highest accomplishment in physical science is its quantitative work.

Mankind has existed on the earth for no one knows how many thousands of years with no knowledge at all of what we call physics, much less of it in any quantitative way, and there has been no felt want for any such thing. The colleges of New England have been provided with these only within fifteen years. At first it was supposed that scientific knowledge could be obtained from text-books, but it was soon found by experience that the student rarely got any intelligent idea of the subject-matter, and that only here and there one was found who could think or had any interest at all in science. The reason appeared to be, they had been able to form no conception of the subject-matter from the book treatment, which had been almost always prepared by one who paid more attention to his subject than he had to the minds he was to reach. If one talks to others in an unknown tongue he may be ne'er so wise or so witty, so earnest or so truthful, he will accomplish nothing for them. Another reason was, the six or ten pages for the day must be read over to be recited, whether understood or not, at the risk of degradation in rank; so a double disaster was the result of attempting to teach science in that way.

Even then the plea was often made that the discipline from the teaching of science was the chief thing to be kept in mind;

that the subject-matter itself was of not much relative importance; indeed that it did not so much matter what one studied as that it should be pursued in a continuous manner and with responsibilities for proper attention to it.

Ah—that word discipline has been a word to conjure with. From the time when it was written, "Train up a child in the way he should go, and when he is old he will not depart from it," until to-day, the cry has been "Discipline, discipline; train, train!" Ideally it has been all right, in practice it has been all wrong, for the outcome of all educational systems has been so great a failure that changes have been made continually, but not for experiment! Every new thing adopted for schools of all grades has been but a change rung on the old ways, old ideas; the assumption being that better methods would give better results with the old material. Who has dared to entertain the notion that possibly the old ideals themselves may be all wrong and things will get better only when they are all abandoned? The teaching of science itself with the old ideal in view, namely, as a mental gymnastic, has failed, as every examiner can testify.

How has it been in those schools where physics has been taught by the laboratory method? Here the theory has been that the student comes at once face to face with nature, and by manipulations, with proper oversight, he becomes acquainted with phenomena and learns their laws. Moreover he is practiced in the arts of observation, of painstaking, of accuracy, and of description.

Now the test of every kind of a scheme is its *ripened product.* An educational scheme, when carried out thoroughly, can never be properly judged until its products have come to maturity, when they may be compared with others educated in a different way. I should like to know what the judgment is of those who within the past twenty years have had the very best care and opportunity in the study of physics which it has been possible to afford. Are such ones in any way superior to their fellows who have had no such opportunity? Are their judgments of men and things

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better; are they wiser; are they getting more out of life; do they show breadth of view; are they more trusted by their neighbors? Of course the answer to this must not come from a set of picked samples, but must be the average of the whole compared with similar average of the other less favored class in this field. I will leave this question to each one of you, with the hope you will think it worth while to consider.

Underneath all questions of the methods of education, there is the question of the nature of mind itself, and not only that but the nature of mind in its various stages of development. Biologists tell us that every one of us repeats in his structure and growth, both bodily and mentally, the development of the race and that even of our far-off ancestors in the animal kingdom. That at first we are mere animals; after that, low types of mankind; then, through savage and barbarous stages, we arrive at such a degree of civilization and enlightenment of moral and intellectual stature as nature and environment permit. We know, furthermore, that the latter and final stage is not attained until the age of twenty-five or later. Our educational system, of whatever sort it may be, has to be worked among individuals who are yet in their savage or barbarous stage of growth.

The rules, laws, penalties, supervision, and so on, all show that infractions and failures of all sorts are attributed to wantonness, stupidity, or wickedness of the individual. We say, "John ought to do this or that"; he knows he ought, and he must be compelled to do it, if he does not do it willingly; whereas the sense of ought has no meaning otherwise than that the want of a stronger can compel a weaker to do what he otherwise would not do. Does anybody think that Philip of Pokanoket had any sense of ought as we understand it? Neither has the average youth of sixteen. The latter is in an unmoral stage and cannot be made moral by any process except coming to maturity. The whole compulsory system which is worked for making him moral in mind is without any adequate reason.

Maxims and advice do not have their intellectual reactions, and the efforts are mostly wasted. Only when here and there one is prematurely developed on that side does it show itself at school age. Everybody knows how slight the occasion may be to transform a class of a hundred young men of twenty years into a howling mob. Reason, much less moral reason, has hardly any standing ground in their organization. It will have more by and by, but not by conscious efforts. It is just so on the intellectual side. Experience has always shown it so, only the evidence has been misinterpreted. Schooling of all grades has been a process appealing almost altogether to memory, because it was found that that side of the intellectual make-up could be continuously worked, and tasked, and some show of attainment be made. He who had gotten his lessons of all sorts was the intellectual fellow—he had mind; the one who failed in that for any reason was belittled, and if the failure was extreme, he was humiliated in some way. Nature of any sort ought never to be humiliated. Even now when we know, all of us, that memory is not a very trustworthy indication of mental worth, school work goes on about the same as before; lessons are assigned and their commitment expected, the underlying assumption being still that if one has in mind the data of knowledge he is educated, and that the data can be got from books more economically than in any other way.

Milk for babes and solids for men has its application here. It is not so much what is food and what is not food as it is powers of digestion; and here is where educational systems are in practice all wrong, and will be so long as what is given cannot be assimilated, and the assimilation no more depends upon conscious effort than does food assimilation. The evidence for the need of the one is appetite for and relish, and for the other the evidence is what is liked and is relished. Instinct is allowed to have a high value in the one, but little respect has been paid to instinct in the other because it has been assumed all the time that the intellect could be cultivated by set lessons and that verbal memory was a test for it.

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The fact is that in all the grades of schools the work set is over the intellectual heads of the pupils. That is just as true in college as in lower schools, and yet the cry is constant for better preparations, and the lack of proper preparations is laid to incompetent teachers and antiquated methods. In my judgment the cry is all wrong. No matter what is done or attempted by the most skillful teachers, the average fellow cannot be fitted properly for the kind and grade of work wanted and the requirements will have to be profoundly modified both in quality and quantity. Those who are apparently fitted, so far as examinations can show, will be found by another kind of an examination—namely, one to discover the possession of ability to do individual thinking, of ingenuity, of originality in any direction, of tastes of any sort and accomplishments of any kind—to be almost utterly without these qualities. Now in physics we know there is a maximum rate at which a machine of any sort can do work and not suffer. It is the same with animals and man. Any attempt to make a plodding nag do work at the rate of a trotter results in failure, and the so-called lazy man or boy cannot safely be made to work faster than his natural rate, and with either man or animal it is safer and wiser to retard the swift than to push the slow. It is a provision Nature herself makes. Much worse is it in educational affairs to attempt or to expect to get what is called high-grade intellectual work out of immature and growing youths. What is meant by high-grade is almost any kind of work which an unspoiled youth takes no interest in and does only under compulsion. For example, I do not believe there is one youth in fifty under twenty-five who cares a snap about Shakspere or what he wrote, or who would touch the work unless obliged to. It has no meaning to him. In like manner in physics such an experiment as is set in some books, as to find the moment of inertia by the torsion pendulum, will not have meaning enough to him to engage his attention for one minute outside of the time he is required to work at it. Both exercises may keep him at work for an allotted

time, but educationally they are failures. To begin with, it is the first business of education to be interesting, and it is the first business of an educator to find means of some sort to interest the student, not to assume it to be the student's duty to be interested in the work set for him to do. In order to do this he must show himself to be in sympathy with the student, recognize his limitations without talking about them, and be content with such work as the student will do willingly and will not run away from on the first opportunity. It is his business to cultivate curiosity and not to suppress it; to make things attractive and easy and not hard or repulsive. Both physiological and mental food is no less nutritive because easy of digestion, and nothing whatever is gained for either by making it more difficult.

How different this is from the common educational theory is to be seen by contrasting it with the proposition that the difficulties should be made that the student should be made to overcome the difficulties. It was once thought, and that not so long ago, that the study of geometry taught one how to reason; *now* it is known that it teaches one to reason only in *geometry*, and who ever goes to a logician for a conclusion on *any* practical question? Now we know that the cultivation of any one part of the mind is not generalized so that its efficiency can be utilized in other departments of the mind. One cannot learn a language any easier because he has studied mathematics, nor *vice versa;* and unless one is primarily endowed with a given mental talent, the longer he pursues a different line of work the less able will he be to take up another line successfully. When this doctrine is once digested by educationalists, there will, I apprehend, be a revolution in the whole scheme.

Perhaps I am long in getting to my subject, but the bearing of this all may be apparent presently. The study of physics is the study of phenomena, and the object of it is to make the student acquainted with the conditions of existence, with himself as an organism related to the whole. He has thrust upon him all the time and in great variety

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phenomena of all sorts, and so has mankind from Adam and the year one, but they have never been rightly interpreted. Neither can they be except by analyzing them and discovering their factors. The physical laboratory is the place where this can be done in an efficient manner, if the experiments be properly chosen and the work carried out in such a way as to make clear the relations of phenomena. The variety from which to choose is almost boundless, but the significance of it all, I apprehend, is seldom attended to as it should be, for various reasons; chiefly because so much care is given to seeing that the work is done thus and thus, accuracy in observation, in measurements, in description and so on—the technique of the thing. As in music technique is killing out musical ideas, so in much laboratory work technique is killing out physical conceptions. So long as the laboratory is kept chiefly for training in methods of doing this or that and credit given for the way in which things are done rather than for evidence, even rudimentary, of an intelligent interest in the meaning of the work, so long the laboratory will be an added instrument of youthful oppression, and the evidences for this are to be found in the promptness with which it will be run away from upon an occasion and the rules forbidding erasing of figures and the so-called cooking of experimental results. The chief object of quantitative work is to assure the student by his own experience that nature's processes are all quantitative; and to make this apparent to him his work should, as far as practicable, be of such sort as he can mentally grasp. For instance, I doubt whether any experiments having to do with the so-called force should be presented to him to do anything with until he was very familiar with the common manifestations of energy in its dynamic form. We are now well past the necessity for thinking of or using the word force at all, and the sooner youth is not troubled with it the better. It is an entire abstraction and has no existence. Pressure and rate of motion are intelligible to him, and with these he will not be confounded. If he is doing something in say elec-

trical measurement, why should he not have direct-reading volt meters and ammeters as well as scales and weights for weighing? Tangent and other galvanometers are a snare if they direct the attention to matters that are not essentially electrical. The real thing he needs to know about electricity is that energy must be spent to produce it, and that $\frac{mv^2}{2}$ is the equivalent of EC. He will then see that electrical phenomena are limited for the same reason that gravitation phenomena are. But he need not do very much work to learn that or to think correctly upon problems of electrical energy; always provided he does what he does because he wants to!

Another thing a physical laboratory can do for a youngster: If he begins soon enough and has not had all his scientific instincts killed out by drill in technique, in language, mathematics, and other things in which he has no interest, it can help him greatly to think, because it has to do or may have to do with matters which he is more or less curious about. Heat, light, electricity, sound, everything that in any way reaches his senses he can study then, but his senses are in no way concerned about any but qualitative relations, and work should be begun always on his side and not from the quantitative. As I said before the quantitative stage is the latest, highest, and most refined product of science, and it has but little relation to any except very mature minds.

Modern physics is now very largely the physics of molecules. I conceive it to be wise to encourage thinking about molecules, their size, properties, and motions, and how phenomena of various sorts can be explained and made intelligible with them. Thus, how condensation not only increases pressure but temperature likewise. It is as easy and simple to understand as the bounding of a baseball from a barn door. If it be treated from the standpoint of thermodynamics one may go floundering about for years and then not know what he is talking about, as is the case with some to-day who make text-books on that subject. "It is an

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error to believe that great knowledge is needful for a clear grasp of first principles."[1] I would add neither is skill in manipulation, industry, nor patience.

Another thing: It is of as much importance in human affairs to know what not to do as to know what to do. We have got far enough along in educational experience to know that, to some scholars, certain kind of work requirements are an absolute waste of time or something worse. Aptitudes have not received half the attention they ought to have received, and to-day they are but little respected. Just as there are some who never can make any progress in mathematics or languages, so there are some who can do nothing with physics and have no interest with anything belonging to it. It is a waste of time to insist that such shall do any physical work. They will not profit in an educational way by anything of the kind that they may do. If they be set to do anything it will be to while away the time until they want to do something, as sometimes a congressman talks or reads against time in order to prevent somebody else from doing what is undesirable. Observe in all this I am refering to *educational* effects, the chief good of which is to make one or to help one to think, to think of things in their true relations; but it is certainly true that one cannot think thus unless he has natural aptitudes for it, and here nature asserts itself and nurture can do almost nothing. Instincts can be killed easily, but they cannot be created in any degree. The different departments of work to which a physical laboratory can be adapted permit a much greater range of topics and treatment for individual idiosyncrasies than any other, and I hold it to be the first tenet of an educational system that it adapts itself to the student instead of adapting the student to it.

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IV

RANKE AND THE BEGINNING OF THE SEMINARY METHOD IN TEACHING HISTORY

The development and wide adoption of the seminary method in teaching history during the last two generations, and its great significance in the promotion of historical investigation, lend unusual interest to the question of its origin. It is well known that Ranke, the centennial of whose birth was reverently celebrated last winter in Germany, was the first great historical teacher[1] to develop and establish this method, but where he got the suggestion and the system he followed have not, so far as I know, been set before English readers in any detail.[2]

[1] Gatterer, at Göttingen in 1764, founded an Institutum Historicum, which has been regarded as a kind of historical seminary (*cf.* Wegele, *Geschichte der deutschen Historiographie*, p. 761), but with doubtful propriety. In any case I find no evidence of its having suggested anything to Ranke. Heyne, in his address at the official recognition of the Institute, calls it "societas cum virorum doctorum et historicis studiis florentium, tum juvenum ad accuratioris doctrinæ laudem adspirantium," etc. In other words, Gatterer's Institute was the familiar Historical Society made up of mature scholars and of students united to promote original research and a more comprehensive knowledge of history. Gatterer's *Allgemeine Historische Bibliothek* was the organ of the society (*cf.* Chr. G. Heynii, *Opuscula Academica*, vol. i. p. 286). Wilken, also, the historian of the Crusades, conducted a seminary at Berlin before and during Ranke's time, but his work was not epoch-making. Wilken is not mentioned in Ranke's letters. Waitz in his *Glückwunschreiben an Leopold von Ranke Zum Tage der Feier seines funfaigjährigen Doctorjubeläums*, February 20, 1867, p. 5, says: "Historische Uebungen sind wohl schon lange einzeln an unsern Universitäten veranstaltet worden. Ich habe auch die des alten Wilken besucht, und ich wäre undankbar, wenn ich nicht der mancherlei Belehrung, die ich hier empfangen,—gedächte. Aber ich glaube nicht zu viel zu sagen, wenn ich ausspreche, dass, wie das Studium der Geschichte überhaupt, so insonderheit das akademische Studium durch Sie ganz neue Impulse erhalten hat." Giesebrecht, in his *Gedächtnissrede*, p. 11, says: "Er selbst hat nicht von einem Seminar gesprochen, aber seine Uebungen sind das seminarium geworden für alle jene Seminare, die wir jetzt an unseren Universitäten besitzen."

[2] In the excellent sketch of Ranke written by the late Professor J. L. Lincoln of Brown University, and first published in *In Memoriam John Larkin Lincoln*, 1894, will be found Von Sybel's account of Ranke's method of work with his Seminary, p. 578.

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In its earlier use the name Seminary was applied to courses designed for the training of teachers rather than to a method of giving instruction to advanced students. Down to the latter part of the last century in Germany the teachers at the Gymnasia, like American college professors for nearly a century later, were either clergymen or men who had received a theological education. As the need for trained teachers began to be more keenly felt, philological seminaries were established at the universities to train young men to be teachers of the classics. Of these early philological seminaries the most famous was that founded at Halle in 1787 by the great Homeric critic, Wolf.

Three years earlier than this, however, we find at Leipzig an organization which is the prototype of the modern seminary, although it did not assume the name. This primitive seminary was founded by C. D. Beck for the purpose of training its members to do independent work. It was known as the Societas Philologica, and met twice weekly during the remainder of Beck's life at Leipzig. The method of procedure was as follows: A member selected a passage from a classical author for discussion and announced it to the others a few days beforehand. At the meeting he commented on its critical, grammatical, and historical aspects, and then listened to the criticisms of his associates.[3]

In 1799 Gottfried Hermann, who had taken his degree at Leipzig in 1790 and thus after Beck's Club was started, formed his famous Societas Græca, which existed till 1840 and numbered among its 189 active members many of the most distinguished scholars of the century. The Greek club was conducted in the following manner: A student prepared a critical paper on some subject and handed it in to Hermann, who read it and marked with a pencil its weak points. At the meeting of the club he passed the marked essay to a

[3] On p. 5–13 of *Commentarii Soc. Philolog. Lipsiensis edi curavit Christian Daniel Beckius, vol i., Leipsiæ*, 1801, will be found the "Historia, consilia, et instituta philologicæ societatis eiusque exercitationum." Volumes of the Proceedings were published at different times.

member called the opponent, who immediately opened a fire of criticism on the work. The writer defended himself as best he could, and when the discussion was closed Hermann reviewed the questions on their merits. These exercises were very stimulating and contributed in no small degree to Hermann's great success as a teacher.[4]

Of these two famous pioneer seminaries Ranke was a member during his student days at Leipzig, 1814--18.[5] At that time he had no special interest in history, but was deeply absorbed in classical literature. In his autobiographical sketches he characterizes Beck and Hermann as the most active and effective of his teachers, and refers to the training for teaching he had received in Beck's seminary.[6] From 1818 to 1824 Ranke was a teacher of Greek and Latin and the history of classical literature in the Gymnasium at Frankfort a. O. In 1824 he was made an assistant professor of history at Berlin, where he began his first systematic instruction in that subject in the spring of 1825 with a course on the History of Western Europe, including the history of literature and the Church.[7]

Among Ranke's intimate friends at this time was Karl v. Raumer, professor of mineralogy at Erlangen. Raumer was at all times deeply interested in improving methods of teaching and to this day is best known for his pedagogical writings. He began his career as a teacher of natural science at Breslau in 1810. He was disgusted at being expected to teach mineralogy without minerals, as was then the not uncommon practice.[8] At Halle in 1819 he had the use of a fair working collection. His instincts as a teacher led him

[4] See Koechly's *Gottfried Hermann*, Heidelberg, 1874, p. 79–81 and 240–244, for vivid descriptions of these exercises. On p. 257–259 will be found a list of the members during the life of the club.

[5] Ranke, *Zur Eigenen Lebensgeschichte*, p. 34, and Koechly, *ibid.*, p. 257. Ranke, in the place just cited, refers to Beck's seminary as the "philologisch-pädagogische Seminar" at Leipzig, which would indicate that pedagogical objects received some attention. His other reference to Beck's seminary is on p. 60, where it is called simply Philologische.

[6] *Zur Eigenen Lebensgeschichte*, p. 34 and 60.

[7] *Ibid.*, p. 145.

[8] Raumer, *Geschichte der Pädagogik*, iv. 95.

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toward practical work and personal contact with the students.[9] Soon after Ranke went to Berlin, Raumer advised his friend to offer practice courses in history.[10] The suggestion struck Ranke favorably and he wrote back, July 12, 1825, "I have just profited by your advice and announced a practice course in history (*historische Uebungen*) for the next term. I very much wish to stand in a vital relation to my students, although, to be sure, I am not quite the man to be equal to the noble position of a true teacher."[11] That Ranke carried out his design appears from his assertion in 1837 that he had conducted practice courses since the beginning of his university activity.[12]

It is clear, then, that the seminary method of instruction in history was an adaptation by Ranke of a method already well tried in classical philology at the suggestion of a teacher of science who keenly realized the value of practical work. Ranke's own experiences in the classical seminaries of Hermann and Beck, and his instincts as a teacher, disposed him favorably to Raumer's suggestion.[13]

His own ideas of the function of the seminary are expressed

[9] Compare his essay, *Katheder-Vortrag*, *Dialog.*, *ibid.*, p. 205–211.

[10] Possibly Raumer's experience as a pupil of Hugo may have contributed to this suggestion. Hugo's lectures on law at Göttingen were attended with *Ausarbeitung juristischer Aufgaben* (Raumer, *ibid.*, p. 73).

[11] Ranke, *ibid.*, p. 148.

[12] *Werke*, vol. liii. p. 479. Dove, in his Life of Ranke in the *Allgemeine deutsche Biographie*, says that the dominant factor of Ranke's teaching was his practice courses as established in a new form, first in 1833. Ranke nowhere gives any hint of a change of method, and evidently regarded 1825 as the beginning of his seminary (see below, p. 363). His work in Berlin was suspended from 1827 to the spring of 1831 by his Italian journey. Giesebrecht distinctly implies that the seminary was formed in the latter year or early in 1832 (*Gedächtnissrede*, p. 11). Apparently the earliest of his pupils to gain distinction was Waitz, who joined his seminary in 1833.

[13] Professor Lincoln writes: "These exercises, as he called them, and which he instituted in imitation of Beck's Philological Seminary, of which he was a member in Leipzig, proved to be the seminary of all historical seminaries which have since been established in the German universities with such signal educational results." —*In Memoriam John Larkin Lincoln*, p. 577. The latter part of his sentence is from Giesebrecht; the former part is the only assertion of the kind I have met with in reading a considerable body of Ranke literature. Possibly Professor Lincoln got it from Ranke himself, whom he knew as a student, and later. Ranke may have

in the preface to the first published work of his students, *Jahrbücher des deutschen Reiches unter dem Sächsischen Hause* (1837). "On the subjective and personal side this undertaking began in the following way. A university professor very soon perceives that he has two classes of students, those who want to be well grounded in science either through their desire for general culture or on account of their future careers, and others who feel within themselves the impulse and call to take active part in the advancement of science. The lectures, I believe, may be suitably directed to both. It is certainly useful for the former to get some idea of the tools of the scholar and of original investigation, while the latter class must needs get a bird's-eye view of the whole field of their work, so that later they may not lose their bearings in the details of special investigation. Both must follow the lectures with attention, whether they are devoted to the logical development of the meaning of history or to the presentation of connected facts. Yet the lectures are not enough. Especially for the latter and much less numerous class is a closer introduction to the real work of the scholar, to personal activity, desirable. This need for many years has been met sometimes in the seminaries under public authority, and sometimes by personal encouragement in voluntary practice courses.

"Since the beginning of my university teaching it has been a pleasure to me to conduct historical practice courses (*historische Uebungen*). More than once I have had the good fortune to see young men of ability and zeal take part in them.[14] Gradually works were produced which were not without scholarly significance; they threw light on difficult points in a new way, and, as they were additions to our knowledge, were not unworthy of being presented to the attention of the learned public. Yet I could not bring

been influenced, too, by Boechk's Philological Seminary, founded at Berlin in 1812. In 1835 he was a member of the Griechische Gesellschaft, conducted by Bekker. Both Boechk and Bekker were students of Wolf's.

[14] These sentences, written in 1837, clearly indicate that Ranke's seminary was then more than four years old.

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myself to encourage the publication of disconnected essays. The ambition which is inseparably connected with one's first publication, with one's entrance into the literary world, should be fixed upon a worthy and important subject. It also seemed to me more advisable to promote the joint production of a more considerable work which should contribute something essential, as we Germans say, and perhaps fill a gap, rather than merely to put forth a specimen of our activity, in which the world could have little interest. In 1834, upon my suggestion, the Philosophical Faculty of the University of Berlin offered a prize for the best essay on the life and work of King Henry I. Several members of our club competed for it and the prize was awarded to one of them.[15] Among the other essays were several of merit and one received a second prize. As a whole these essays surpassed my expectations." Ranke then goes on to say that he suggested to the more advanced members of the seminary that instead of longer scattering their efforts they should concentrate them on the investigation of the Saxon period. They did so, and the result was the *Jahrbücher des deutschen Reiches unter dem Sächsischen Hause.* The essays were carefully criticised by the members of the seminary. Ranke concludes: "I scarcely need give the assurance that these works are independent productions, for they show it themselves. I do not subscribe to all the assertions or judgments expressed in them, nor, on the other hand, would I assume for myself the praise which the authors may have deserved. Every teacher knows that the best that he can do consists in his indirect influence, under which fortunate natural abilities and peculiar scientific aptitudes receive the freest scope for their exercise."[16] Among the fragments printed with Ranke's letters is the following reminiscence, after fifty years, of this early seminary: "I recall in the presence of the once young but now gray-haired members who took part in the *historische Uebungen* the studies in

[15] Georg Waitz. The prize essay was worked over into his published work on King Henry I.

[16] *Werke*, vol. liii. p. 479–481.

German history then begun. I have just looked through a long series of *Jahrbücher des deutschen Reiches*, but a still broader survey is afforded by the historico-diplomatic studies conducted in all the other fields. What we then began modestly, the seed which we then planted, is grown to a great tree in whose branches the birds of the air lodge. I connected my historical seminary (*Uebungen*) with the earlier studies which I had prosecuted in Frankfort. The old collections of various kinds, with their imperfect texts, I had already begun to read. My memory goes back even further to Stenzel, who was tutor in the family of a preacher at the Nicalai Church in Leipzig, but also a trained historian by profession. It was at his rooms that I first saw a collection of *Scriptores*, and I began to read some of them under his direction. This I continued in Frankfort, where I attempted an essay on the old Emperors in connection with my teaching. The first volumes of Pertz appeared later, but they reached only to the Carolingian period and not actually into the history of the Germans. We therefore had to resort again to the old editions. I am still surprised at the ability and application of those young students who gathered about me. There were: Giesebrecht, who called on me to-day; Köpke, Wilmanns, and Waitz, to whom I then said—such was the impression he made on me—that he was destined to be the Muratori of German history. Giesebrecht had a poetic temperament, he already was a skillful writer; Köpke, ingenious, with the gifts of a scholar; Dönniges, enterprising, full of practical ideas. In this circle the work went on. We came to the *Chronicon Corbejense*, whose spuriousness I recognized at first without being able to prove it. The members of the club made the investigation which was to prove it not genuine. Waitz at that time was not with us. He had gone to Copenhagen, and when he returned he was reluctant to adopt our thesis, but soon he convinced himself. With Hirsch, one of our most industrious members, he prepared the essay which convinced us all. Hirsch was the youngest of the group, very well trained and zealous.

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Then we united to prepare the *Annals of the Saxon house*. What prompted me to this was the example of Raumer's *Hohenstauffen* and Stenzel's *Salian emperors*.[17] The blessing of heaven guided these beginnings. The men have made their way in the world, but the old ties of friendship still hold the survivors together, and to me it is a kind of family alliance in literature." [18]

Of Ranke's method in conducting the seminary, Von Sybel has given a brief sketch in his memorial address: "For training those who wished to make a profession of writing history, he instituted special historical practice courses, in which, under his sure guidance, the pupil, without much theorizing, learned critical method through his own efforts. Ranke allowed him free choice of his subject, but was always ready from his inexhaustible store of knowledge to propose instructive problems. Errors arising from neglect of critical principles were judged unmercifully, yet in a friendly manner. For the rest, he suffered each mind to follow its own bent, mindful of that supreme rule of teaching that the work of the school is not the formation but the development of the native powers." [19]

A more complete description of this nursery of historians is given by the greatest teacher and scholar among all of Ranke's pupils, Georg Waitz, and with this our sketch of the history of Ranke's seminary may fitly close.

"It was never your wish that the young friends who attached themselves to you should all follow in your footsteps, or that a definite series of works should be divested of individual characteristics; least of all did you desire to form a school in the sense of requiring conformity to definite views and ways of looking at things, either as regards the form of presentation or the general conception of the subject. On

[17] Ranke also notes that residence in childhood and youthful travels in Saxony had early kindled an interest in the country.

[18] *Zur Eigenen Lebensgeschichte*, p. 649–650. Memorandum entitled *Die Alten Schüler*, April 6, 1884. Other particulars about the preparation of the *Jahrbücher* may be found in Ranke's letters to Waitz during this period.

[19] *Gedächtnissrede auf Leopold v. Ranke*, *Hist. Zeitschrift*, 56, 474.

the contrary, the greatest freedom in the selection of problems and in the methods of treatment was taken for granted. You were not sorry to see the different personalities around you each developing his particular inclinations and capabilities. You allowed yourself to be drawn by us to subjects hitherto strange to you, but which your comprehensive mind soon mastered. What a variety of subjects from ancient, mediæval, and modern history was discussed during the years while I was a member of the seminary! You were not quite satisfied once that the majority of the members preferred other fields to modern history—I suppose because in this field the difficulties of the management of materials are so much greater—but you always acceded, showed recognition and encouragement for every effort, gave opportunity to the peculiar ability of each, and knew how to moderate and to reconcile differences when they came into sharp conflict. And with what ever active sympathy did you follow the later work of the members, no matter what direction it took, or whether they adhered to or diverged from your treatment of the subject.

"To every view you gave freedom; even pretty strong antagonisms in politics and religion, which so often are involved in the problems of the historians, you removed, and never let them disturb the relations of the old association. Scientific earnestness and honesty of conviction alone were important for you. So to-day men of the most divergent positions and opinions, who once sat at your feet, gather around you and all confess that from you more than from anyone else they received stimulus and teaching. With the historians gather also many who have achieved distinction in other fields, teachers of political science and philosophy, practical statesmen and journalists."[20]

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[20] *Glückwunschreiben*, p. 4–5. Waitz, on p. 5–7, describes the methods he followed in his own seminary at Göttingen, and then gives a list of some of his most successful pupils.

V

OLD AND NEW METHODS OF TEACHING ELEMENTARY LATIN

If this subject were treated in all its length and breadth it would far surpass the space at my disposal. I might devote the time to a consideration of how the Romans themselves taught their majestic *sermo patrius* or to a review of their grammarians and their text-books. From the third century B. C., when Livius Andronicus set up his school and translated part of the *Odyssey* into Latin for his *discipuli*, there lived and flourished a long line of teachers, grammarians, and rhetoricians, whose influence is still to be seen in many of the books of to-day. Linguistic study was peculiarly adapted to the analytic, logical, introspective Roman. He was a natural grammarian. As early as the second century B. C., Ælius Stilo founded scientific grammar. What names are greater than Quintilian and Varro? Long after Rome had ceased to produce literature her genius for grammar continued to flourish, and left us as monuments the works of Donatus and Priscian. The former, living in the fourth century, has exerted a strong influence upon all subsequent elementary Latin text-books. His book was the first printed in Italy, in 1469. Priscian's work, in eighteen volumes, was the standard for many centuries, and in the days of the *trivium* and *quadrivium*, great and rare was the scholar who had had a course in both Donatus and Priscian.

I pass by these *nimis antiqua* with some regret, because they lead so directly to the more modern aspects of the subject. Leibniz said, *Natura saltum non facit.* He might have said, *Doctrina saltum non facit;* for there is an educational as well as a natural evolution. Curricula and methods

are not the product of an inventive brain or the creation of an hour. Though the fall of Rome and the dark ages separate us from the past, the threads of influence run through it all. These not even that great upheaval could entirely sever.

Naturally, method always depends upon the object in view. If we begin with the Middle Ages, we find that the supreme aim of teaching Latin was to learn to write it and to speak it. It was the great means of communication between the nations of Europe and within the nations themselves for all the elevating and refining purposes of life. The modern languages were entirely uncultured and rude, without form or comeliness that man should desire them. A writer of the period sententiously remarks, "Only the devil speaks German." The Reformation drove Latin out of the Church to a great extent, but it continued to be the language of the court and of diplomacy as late as the eighteenth century.

All effort during these years was toward the practical use of the language. The only ancient grammarians known were Donatus and Priscian. These, with the famous *Doctrinale* of Alexander de Villa Dei, based upon Donatus, were the books most used up to the Renaissance. The *Doctrinale* was virtually committed to memory, for the object, however, of learning to read; which, Martianus Capella (500 A. D.) says, is the only business of grammar. Along with grammar there was much memorizing of Latin. This, in the form of short pithy sentences known as Catos, from the famous sayings of the illustrious censor, was begun before the pupils knew what the words meant or had studied any grammar. The instruction was all carried on in Latin. It was a living speech; barbarous to be sure, but still alive. There was much learning of disconnected word lists, and many books of colloquia based mainly on the comedies of Terence; also imaginary conversation suited to different situations and circumstances of life, reminding us of Ollendorfian German of the present day and the painfully interesting dialogues of the Sauveur School of Languages. All sorts of phrases, idioms, and sen-

tences of every description were learned *ad infinitum, ad nauseam.*

Latin was not studied for its literary value, nor were the ancient authors read as models of style; nor did the men of the time address themselves exclusively to great writers like Cicero, Livy, and Vergil. Extensive reading was carried on from a great variety of authors and preferably from the more modern ones, as Orosius, Valerius Maximus, Isidor of Seville, and the fathers of the Church. In fact, in the fourteenth century the knowledge of the ancient classics had so largely disappeared that Richard de Bury [1] mourns that by the destruction of the library of Alexander there had been lost the following, forsooth: Cadmi Grammatica, Parnasi Poemata, Apollinis Oracula, Jasonis Argonautica, Strategemata Palamedis! Having no literary merit nor canons of style, the Latin of this period grew worse and worse and affords a striking illustration of how little culture there is in mere linguistic study, if not enriched and supported by a constant influx of new and large truth through a great literature. There is a mistaken notion, always more or less prevalent, that the ability to speak a language stands for a great deal. As a matter of fact, it stands for very little. If it did, the polyglot couriers of Europe would be the masters of us all. A man might speak with all the tongues of men and of angels and still be only sounding brass and a tinkling cymbal. I remember hearing Professor Calvin Thomas (of this University, alas! no longer) say that if he could trade his ability to speak German for books on German literature, he would do so in a moment. Was he wrong? We trow not. This point has a bearing on the subject in that it at once puts its ban upon any method which allures by promising much through the use of conversation and other so-called natural and inductive methods. During the Middle Ages, thanks to prolonged study for a long series of years, they finally mastered Latin so that they could not only read it and write it, but also speak it. As the air was pervaded with Latin as a living

[1] Eckstein, *Lateinische u. Griechisches Unterricht*, p. 60.

speech, it was natural for them to learn it as they did, largely through conversation and induction. But for us to learn Latin in that way is not only very difficult but altogether unnatural. The advocates of these methods seem to forget that the atmosphere of the Middle Ages cannot be reproduced, and that consequently all their efforts are forced and unnatural. We all believe in using induction in teaching, but not that pure and simple. So we all believe in colloquial Latin, especially for beginners,—most of us do not use nearly enough of it, not a tithe as much as is used in the German schools—but we do not want it exclusively, nor do we wish it to lead to an arrogant conceit of superficial knowledge, as is often the case in modern languages, where a boy is apt to think he has mastered the German or French language when he can say "What time is it?" and "Does the baker love the candlestick-maker?" Such methods are anachronous survivals of the Middle Ages—*requiescant in pace.*

Another relic of the spirit of the Middle Ages, and one which has continued to show itself more or less conspicuously in almost all beginners' books, is the memorizing of unrelated and disconnected word lists. This was done in the Middle Ages by giving a few words daily even to young children, the number being increased by degrees. We are in no danger of teaching too much vocabulary, but in erring with them in not choosing the way of least resistance. I believe that we should make a systematic study of vocabulary from the first day of Latin study by means of word lists based on common roots. Along with these should be given some elementary and fundamental principles of word formation. Time might better be spent on this than on another survival of the Middle Ages, viz., excessive parsing and analyzing. This relic of the past allows no word to exist for itself, but duly catalogues it and gives it its logical dependence. This, no doubt, has its use but much oftener its abuse. It does not contribute as much to the power over language as the same amount of time put upon reading on in advance.

It is apt to become mechanical and perfunctory. If a boy knows that a noun is in the genitive case and knows how to translate it, it does not add to his knowledge of the passage to be told that it is the objective, subjective, partitive, or possessive genitive, however convenient that may be for purposes of grammatical classification. In fact, too much parsing is sure to become an absolute hindrance and bar the progress to rapid mastery of the thought. It seems almost an impertinence when a bright student with kindling eyes and heightened color is giving his best version of an inspiring thought, to drag him down from Parnassus to the consideration of an *ut* or a *cum* clause. Of course when a question of construction is vitally connected with a proper interpretation, it is always in order.

With the Renaissance the character of Latin was wholly changed from its mere linguistic study to the study of its literature. For all that the Middle Ages contained, the new era had nothing but disdain and ridicule. In philosophy, theology, jurisprudence, literature, it rejected all that the Middle Ages held dear. Having found the true antiquity, Greek as well as Latin, it would have to do with nothing else. Melanchthon, almost as distinguished as a Latinist as for the part he took in the Reformation, cries "Away with these teachers of ignorance! We must go to the sources, we must cultivate the ancient Latin, attach ourselves to the Greeks, without whom Latin cannot be rightly used. We must study the things, not the shadows of things," etc.[2] Not only did they wish to understand true antiquity, but they made the pretense of being able to equal it and to continue it. Latin composition was assiduously pursued, using the classics as models—says a writer[3] of that day, *Ego pro lege accipio, quidquid magnis auctoribus placuit.* The leading Latinists of this period address each other as a modern Vergil, a Christian Ovid, a German Horace; not out of mere compliment either, but because they actually believed that the

[2] Bréal, *L'enseignement des langues anciennes*, p. 34.
[3] Lorenzo Valla, 1471 A. D.

ancient literature was again flourishing. They produced many poems and plays that the authors they feigned to represent might have been willing to own. Much time was given to letter-writing on the model of Cicero's epistles, and some books of such were published. The schools produced many orations which had a very noticeable effect upon all sorts of public addresses. In time there was no social function of any kind that was not graced or disgraced by a Latin oration. Beginning about 1500, this practice is, I believe, still kept up on great occasions in many European universities. In the sixteenth century the Latin oration held almost the same place that music fills to-day. Latin had now ceased to be a thing of daily and practical utility; it was rather something for show, and from the day that it was established that the only good Latin was classic Latin, it became a dead language. At just about this time, too, the modern literatures, under the inspiration of classical study, began to develop. Latin continued to be studied in the schools, but its method of presentation and its curriculum were very different. The study of Latin grammar was carried on much farther and more systematically as the only true and safe guide to reading. Natural and inductive methods were pushed to the background. Hear the distich of a famous teacher[4] to his pupils:

> "Discite grammaticam, pueri, qui cetera vultis
> Discere, namque viam prima elementa dabunt."

As to curriculum, inferior writers were banished from the schools to a great extent and the true classic canon established. They still included, however, Æsop's *Fables*, Valerius Maximus, and Statius. Along with the reading was much writing of themes and verses. The important place given in schools to Latin composition dates from this period, though with us it is rather an exercise in grammar than in style. As to verse writing, there has been little or none of it done in America. In European schools more is made of it.

Since Latin had been driven from its throne as the popular learned speech, it must needs resort to some other strong-

[4] Melanchthon, quoted by Eckstein, *op. cit.*, p. 138.

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hold in order to maintain its place in education. This necessity gave rise to the so-called doctrine of formal culture, which held uninterrupted sway until recent years, and has been of the first importance in shaping methods of instruction. This doctrine is so familiar that I need scarcely more than allude to it. In all teaching one can consider on the one hand the material, the content, the information, and on the other the form in which it comes and its effect upon the development of the faculties. According to the doctrine of formal culture, the plea for the study of the ancient classics rests almost wholly on the latter consideration. By this, content is counted as nothing, form everything. The discipline of the mind is its excuse for years of linguistic study. Says M. Bréal, the eminent French scholar, quoting another's opinion, " If on going out of the lycée the graduates should bathe in the Lethe, causing them to forget all that they know of Greek and of Latin; should they be allowed to keep only the cerebral development gained, and the tendencies acquired, this forgetting would in no way prove the uselessness of the ancient classics."[5] We all acknowledge the truth that lies concealed in this rather extravagant statement, but we rejoice that we are getting away from the extreme rigor of this doctrine. Here, as in everything else, *est modus in rebus*. Our apostasy has been caused by various influences. The elective system began at Harvard in 1846, opening the way to new paths of useful knowledge; the rising tide of modern language study—in 1838 but one modern language was studied at Harvard, and precious little of that; the wonderful achievements of modern science and the scientific spirit engendered by it; all these forces have been trying the gold of formal culture. All true friends of classical training congratulate themselves that these Philistines have been arrayed against us. Since their advent the work in the classics has greatly gained in precision, force, and strength. and their practical and ethical value has been firmly estab-

[5] Bréal, *L'enseignement des langues anciennes*, p. 67.

lished as apart from and in addition to their disciplinary value.

Less than twenty-five years ago, when I began to study Latin, the doctrine of formal culture had hardly been shaken. We committed the grammar from *a* to *ampersand*, laying special stress upon unimportant and infinitesimal exceptions. This was for mental discipline. Our fresh and vigorous class of innocents was soon decimated. But few survived, *Rari nantes in gurgite vasto.* When I think of those days I can appreciate the feeling that prompted Heine to say that if the Romans had been obliged to learn Latin they would never have conquered the world. We are rapidly reaching a more rational basis. From the very day that a boy begins Latin,—and let us hope that will soon be the seventh or at least the eighth grade rather than the ninth,—the idea is put squarely before him that he is going to learn to read Latin easily and quickly; not that he is going to have his mind disciplined by a mysterious process of cerebral exercise in the cheerless evolution of linguistic radicals. He is told that he is to read Latin for its literature, not for its syntax. As Dr. Arnold well said, "The subjunctive was made for man, and not man for the subjunctive." He is told that he is to be brought into contact with the great men and the great thoughts that made a great past, and made possible a greater present. Students have been told of this object of Latin study before this, but it has not been realized in the great majority of cases. Neither the methods of study nor the courses offered have made it possible. After four years more or less of hard work on Latin, they have left it with a feeling, more or less pronounced, that they have been wasting a great deal of valuable time on a most uninteresting people whose chief occupation seems to have been killing inoffensive savages, building mounds, digging ditches, and sojourning through the accusative of time in some backwoods settlement with an unpronounceable name. Now the way is made as easy and practical and at the same time as thorough as possible; translating, pronouncing, reading at

sight, writing, speaking, all going on daily from the very beginning; all energies being directed toward mastering the language as the key to the literature. As for the present course in Latin reading in secondary schools, it needs very much enriching and changing.

The next important step after the Renaissance in the history of classical learning was made in Germany in the latter part of the eighteenth century. It was the division of the vast field of antiquity into various departments. It marked the beginning of specialization which is so strong a feature of our present system of education. The different branches of philology were formed one after the other, textual criticism with Gottfried Herman, epigraphy with Böckh, archeology with Gerhard and Otfried Müller, mythology with Welcker, grammar with Buttmann, ancient history with Niebuhr, history of philosophy with Tenneman and Ritter, without speaking of others. Antiquity was studied with more seriousness and with a higher spirit than ever before.

The scholarly work of specialists in the fields enumerated above had a very marked effect upon the secondary schools. The opinion became established that masters in these schools ought not to be ignorant of the common work, but must keep in touch with it and share in it so far as possible. This raised the standard of teaching qualifications very greatly. Every teacher felt the necessity of being a student and an investigator. This idea is more firmly rooted than ever to-day. The men in the German Gymnasia are all of this sort and every year they contribute much to the literature of their respective specialties. In this respect they far surpass the ordinary teacher in our secondary schools, who often is not a scholar, but a rote teacher in a small round of slender learning.

The last and one of the most important steps in the history of the study of Latin and its methods in teaching was made under an impulse formed without. William Jones's discovery of Sanskrit was published in 1786, Bopp's first work in 1816, Jacob Grimm's historical grammar in 1819, and with

these comparative philology began, and the use of the comparative method, which now is one of the most important in all scientific investigation, linguistic and otherwise. To this may be traced the new importance we are giving to the subject of quantity and pronunciation, owing to valuable discoveries in phonology. Another effect, but not so commendable, of the wide interest in philology is to be seen in many text-books and in some teachers whose delight it is to dabble in it. There is present the desire to make *οἱ πολλοί* stare by recondite allusions to Sanskrit and phonetics; but we may congratulate ourselves that this seems to be on the wane and to be steadily giving way to a desire to be practical and helpful, to be rather illuminating than pyrotechnical.

I find myself at the end of my space with but a very imperfect sketch. In conclusion let me say that no method, old or new, will ever supply defective scholarship. I feel the more like saying this because I am a representative of a normal school. In such schools there is danger that methods will be unduly exalted; but I hold that a man's respect for mere method, as a patent device for accomplishing hoped-for results, and his scholarship, are sure to be inversely proportional to each other.

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VI

WAS COMENIUS CALLED TO THE PRESIDENCY OF HARVARD?

Cotton Mather says he was. On p. 128 (book iv.) of the *Magnalia*[1] he says: "Mr. *Henry Dunster*, continued the Praesident of *Harvard-College*, until his unhappy Entanglement in the Snares of *Anabaptism;* fill'd the *Overseers* with uneasie Fears, lest the Students by his means should come to be Ensnared: Which Uneasiness was at length so signified unto him, that on *October* 24, 1654. He presented unto the Overseers, an Instrument under his Hands; wherein he Resigned his Presidentship and they accepted his Resignation. That brave Old Man *Johannes Amos* COMMENIUS, the *Fame* of whose Worth hath been *Trumpetted* as far as more than *Three* Languages (whereof every one is Endebted unto his *Janua*) could carry it was agreed withall, by our Mr. *Winthrop* in his Travels through the *Low Countries*, to come over into *New England*, and Illuminate this *College* and *Country*, in the Quality of a *President:* But the Solicitations of the *Swedish* Ambassador, diverting him another way, that Incomparable *Moravian* became not an *American*."

In the introduction to my edition of the *School of Infancy*[2] I have expressed a doubt as to the call of Comenius to the presidency of Harvard, and the editor of the REVIEW has asked me to present the basis of my doubt.

1. When preparing for the three hundredth anniversary of the birth of Comenius at Pasadena, Cal., now nearly

[1] *Magnalia Christi Americana; or, the Ecclesiastical History of New England.* By the Reverend and Learned Cotton Mather, M. A., and Pastor of the North Church in Boston, New England, London, 1702.

[2] *Comenius' school of infancy.* Edited with an Introduction and Notes by Will S. Monroe, Boston, 1896.

five years ago, I wrote to Professor Hanus to ascertain if the records of Harvard College corroborated Mather's statement. After examining the proceedings of the overseers and all other records of the college during its early history, he replied that he could not find the slightest corroboration of Mather's statement, and that he seriously doubted its accuracy.

2. The historians of the college—Pierce, Quincy, and Eliot—are silent on the matter, none of them even alluding to it. And President Josiah Quincy in his complete and standard history of the institution refers to the "loose and exaggerated terms in which Mather and Johnson, and other writers of that period, speak of the early donations to the college, and the obscurity, and not to say confusion, in which they appear in the first records of the seminary."[3]

3. I have examined with some care the numerous lives of Comenius printed in the German language, and a Bohemian friend has examined those printed in the Czech; and although we find less noteworthy distinctions recorded, there is no mention of a call to Harvard College or America.

4. In the *Journals*[4] of Governor John Winthrop of Massachusetts there are no allusions to Comenius. Governor Winthrop died in 1649; and it was not until 1653 that President Dunster fell "into the briers of Antpædobaptism," when he bore "public testimony in the church at Cambridge against the administration of baptism to any infant whatsoever." And the historians of the college report that up to this time (1653) his management of the college was singularly satisfactory, so that there could have been no thought of a successor to President Dunster before Governor Winthrop's death. Mather is either in error, or he does not refer to Governor Winthrop of Massachusetts. Dr. Edward Everett Hale in a personal letter expresses the opinion that the "our

[3] *The history of Harvard University.* By Josiah Quincy, Boston, 1840. 2 vols.

[4] *The history of New England from 1630 to 1649.* By John Winthrop, Esq. . . . from his original manuscript with notes . . . by James Savage, Boston, 1853. 2 vols.

Mr. Winthrop" referred to by Mather must have been to his own contemporary Wait Still Winthrop, the jurist, and a grandson of Governor Winthrop of Massachusetts. "He was a member of the council," adds Dr. Hale, "and as a magistrate would have been a member of the board of overseers [of Harvard] as it was then constituted." But Wait Still was only eleven years old when President Dunster resigned and less than twenty-eight years old when Comenius died.

My own impression is that Mather may have referred to Governor Winthrop of Connecticut, the eldest son of the Massachusetts Governor, although I fail to find that he had anything to do with the management of Harvard College. Governor Winthrop of Connecticut was prepared for college at the Free grammar School of Bury St. Edmunds; studied two years at Trinity College, Dublin, and was one year a law student at the Inner Temple. He served as secretary to Captain Best of H. M. ship *Due Repulse* in the expedition for the relief of the Protestants at Rochelle in 1627, and after the failure of this expedition he left England (June 17 or 18, 1628) for a fourteen months' tour on the Continent, three of which were spent at Constantinople and two at Venice and Padua. On his return home (July and August, 1829) he visited the "Low Countries," but it is not probable that he met or even heard of Comenius on this tour.

Young Winthrop followed his father to America in 1631, and ten years later (August 3, 1641) he returned to England. It will be remembered that, in response to an invitation from Parliament, Comenius reached London September 21 of the same year and that he lingered there until the 10th of June, 1642, when he went to Holland and thence to Sweden. Winthrop did not return to America until 1643, and during his stay in England he paid a visit to the Continent and the "Low Countries." It was not altogether improbable that he may have met Comenius in London or Holland, but at this time there was no vacancy in Harvard College.

Winthrop visited briefly in England during the early

months of 1661, and the only reference to Comenius in connection with the names of any of the Winthrops occurs in a letter from Samuel Hartlib written at "Axe-Yard in Westm. Sept. 3, 1661," to Governor Winthrop at Hartford, shortly after the latter's return from London. It is a long and newsy letter, full of gossip about men and movements, the kind of a letter Hartlib always wrote, and contains the following sentence: "Mr. Comenius is continually diverted by particular Controversies of Socinians and others from his main Pansophical Worke, but some weekes agoe hee wrote that hee would no more engage hims in any Particular Controversy, but would refer y^em^ all to his Pansophical Worke."[5] But two letters are preserved from Hartlib to Winthrop, this one, and another written October 9, 1661; and the evidence is wanting to show that the two men met during Winthrop's previous and more extended stay in London. The allusion to Comenius indicates that Winthrop knew something about the Moravian reformer, if not personally, then through Hartlib, who knew Comenius well and who entertained him during his London stay.

5. There can be no doubt as to Mather's error in regard to the date of the call of Comenius to Sweden. The negotiations were begun in 1641 and completed in August of the next year. He settled at Elbig in November, 1642, and remained there for four years, when he returned to Lissa, Poland.[6] The "Solicitations of the Swedish Ambassador, diverting him another way," took place more than twelve years before Dunster's resignation. There is no disagreement among the numerous biographers of Comenius on this point. During Dunster's troubles with the overseers of Harvard, Comenius was in Hungary in the employ of Sigismund Rakoczy and his mother the Countess Susanna,

[5] *Correspondence of Hartlib, Haak, Oldenburg, and others of the founders of the Royal Society, with Governor Winthrop of Connecticut, 1661–1672*, with an introduction and notes by Robert C. Winthrop, Boston, 1878.

[6] *Johann Amos Comenius: Sein Leben und Sein Schriften.* Von Dr. Johann Kvacsala, Leipzig, 1892.

reforming the schools of Transylvania. He settled there (at Saros Patak) in October, 1650, and remained for four years, when he returned again to Lissa. With so many flaws in Mather's statement, and the absence of corroborative evidence, it seems to me altogether improbable that Comenius was called to the presidency of Harvard.

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VII

DISCUSSIONS

THE NOTEBOOK AS EVIDENCE OF PREPARATION FOR COLLEGE

Is it not time for a protest, or at least a word of mild dissent, concerning the too exclusive dependence upon a notebook as evidence of fitness for college? The reliance of the college upon vouchers of this sort in physical science examinations is certainly extending, and it is now proposed to give like weight to the notebook in other examinations. For example, see the May number of the EDUCATIONAL REVIEW, pp. 420 and 460.

If the discrimination of secondary pupils as ripe or unripe for college work on the basis of a set of notebooks were all there is in the case, we should have little to complain of. The colleges will in some way protect themselves against incompetent students by supplementary examinations. We all know how—and how well—this is done at Harvard, where the system in a formal way had its origin. On the side of the colleges nothing could be more safe and wise than the suggestions of President Eliot and Mr. Bergen referred to above. Let us have the notebook by all means to indicate the method, the range, and the extent of the pupil's work and to lay down the lines within which the examination may properly proceed.

But this is not all there is of it. The few pupils who go forward to college from the preparatory schools have had their examinations somewhat unified and simplified by these vouchers, but the many who do not go to college come to regard the notebook as in some sort a finality, to make a fetich of it, and so to mistake the aim of scientific work—as if it were the production of a show-book of experiments. Elaborate figures are copied from text-books; the labora-

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tory notes are expanded by the introduction of irrelevant matter, and the whole is showily written up, often in colored inks, and at great expense of time and labor. The experiment itself occupied an insignificant place beside this imposing record. If an art student is never seen sketching, but is eager to exhibit the sketches made with his master as evidence of his ability to draw, we all know what it means: and why should a different rule obtain here? I am sure I am not alone in thinking that no improvement could be introduced into secondary (or lower college) laboratory science comparable with the abandonment of the elaborate and "doctored" notebook in favor of the simple record of actual work, made at the moment, examined at the moment, and then consigned to oblivion.

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THE KINDERGARTEN FROM THE COLLEGE STANDPOINT

I propose to speak briefly of the kindergarten from one point of view only, namely, that of college pedagogy.

I have nothing to say in criticism of what the kindergarten has been. I believe that it was inevitable that the kindergarten should have first developed along the line which it has taken. The years of word-cram and the traditional dead formalism of the schools prepared the way for a complete rebound in a new movement, which devoted its energies to feeling, sympathy, and spontaneous doing. The day has happily now passed when the kindergarten dare take its stand on the sympathetic or charitable or sociological foundation, alone. It may be any or all of these, but to be worthy a place of true dignity in the educational world it must be pedagogical. In the evolutionary history of the world and its inhabitants, in every age there came first a gradual change of types, a slight differentiation from the normal predominant type, foreshadowing the dawn of a new era. Gradually change became more pronounced, differentiation went on faster and faster, until finally a rapid acceleration ushered in a new age. I believe the world-history but repeats itself in

the microcosm, in the development of the kindergarten movement. There still remains some bad sentimental kindergartening, a relic of the first stage of evolution; but happily this sort is in the small minority, and the prevalence of newer and better types gives hint of a new stage of development. At the present time, differentiation is coming at a good round pace. It is for this reason that I firmly believe the next few years will demand much of the progressive kindergartner; that the near future will present a turning of the ways, when the kindergartner must choose which she will serve, kindergartenish or pedagogical masters. It is because of this sincere conviction that the past two decades have formed the first evolutionary stage of kindergarten development, and that the present hints of progress and reform give promise of something different and far better, in the future, that I venture to make a plea for the kindergarten from the college standpoint. It may seem to many as though it was a far cry from the lowly kindergarten to the heights of a pedagogical chair in one of the great American colleges, but the present writer, who is both a practical kindergartner of many years' experience, and at the same time a college alumnus and graduate student in pedagogy, wishes to give a bit of actual history of a practical union of the two.

In California we have become accustomed to a close relationship between the highest institution of learning in the State, the University of California, and the public-school system. For some time past it has been my privilege and my pleasure to have charge of the kindergarten department in the Observation School of the Department of Pedagogy in the University of California. This Observation School is one of the ordinary grammar schools of Oakland, perhaps the one with the least favorable surroundings and conditions in the city. For more than a year it has been under the personal control and supervision of the two professors of pedagogy in the university, who carry on several lines of professional work with the teachers, and at the same time direct the practical affairs of the school. When the college professors took charge of the school a kindergarten

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department was added to it, the first public-school kindergarten in the city. We began our kindergarten under adverse circumstances but with the firm determination to cast aside the entire code of kindergarten traditions, as such, and to take our stand upon purely scientific pedagogical principles. As a means to this end we held (1) that the kindergarten was not a thing apart by itself but an integral part of the school, with which it must stand or fall; and (2) that the kindergarten was not a finished institution revelated from the brain of Froebel, perfect and therefore incontrovertible, but that to have any excuse for being whatever, in its every working it must hold itself to the searching criticism of the most scientific and advanced pedagogy of the day. We hold that the time has come when the evolution of the science and art of teaching has so far progressed as to render it impossible for the kindergarten to have any broad, easy, private highway into the pedagogical heaven. The obscuring mythic halo of romance which, in the minds of some devotees, still clings to the magic word kindergarten, must vanish before the kindergarten can take its rightful place of practical dignity in the world of college doctors. Far be it from me to belittle Froebel's truly high place in the educational world. He assuredly saw deeply with the noble insight of a poet or a seer, straight into the heart of things, and for this be honor and glory unto his name forever. But my contention is that he gave no "cut and dried," perfect system, with an airy and peculiar technicality of its own, set apart and inviolable, which must not be touched by any profane finger. And if the kindergarten is to rise from its lowly position of nursery adjunct to the pinnacle in the educational world which truly belongs to it, its training teachers, its students, and devotees of every description must meet the demands of recent scientific pedagogy. The modern kindergartner must not look beseechingly backward to Froebel's models as the only source of wisdom, but rather she must zealously demand of the college doctor the richest and best fruits of his science. Let us take Froebel's best, as we would take Herbart's best, in so far as modern science supports both.

Speaking of a certain book, the characteristic effusion of

a noted member of the kindergarten profession, an eminent professor of pedagogy in a college of high rank said to me, "Why do you kindergartners continually insist on threshing over old straw which Froebel once threshed in an able manner, and so making narrow books like this when you have such a magnificent field before you in bringing into line with the best scientific thought of the day the results of Froebel's luminous insight?"

Happily the most open minds among us are beginning to realize the dawn of a new era and are seizing some of the results of recent scientific investigation. It is easy to admit that some of our hand work may be too fine, and change or omit it. It is, perhaps, more difficult for some of us to acknowledge the right of modern biological pedagogy to demand of the kindergarten a judicious rhythmical admixture of hard duty work with its spontaneous play. But all this is on the surface. The time demands from kindergarten training schools not this *dilettante* dabbling with here a result, and there a deduction, of either child psychology or biological pedagogy, but a strenuous study of scientific principle.

Recently a member of the California branch of the Association of Collegiate Alumnæ went East as a delegate to the general convention of that body. She went widely over the Eastern States, visiting the different branches of the Association. Everywhere she spoke to child-study meetings, telling of her wish to work with the kindergartners, and also of the impossibility of so doing in most cases, because of their cloudy, mythical statements of belief and their almost universal inability to know anything outside of Froebel, and their failure to grasp the large scope and perspective of the educational movements of this as well as all time. At first blush the writer was highly incensed, and even went so far as to prepare a rebuff to this reproach, but finally decided to halt in her mad career, since calmer reflection reluctantly forced upon her the conclusion that for the most part, the unpalatable statements were horribly and lamentably true, viewed from the college standpoint. Convinced that we as kindergartners have inherited a truly

magnificent legacy in many of Froebel's principles, which need only a careful readjustment to modern scientific demands, to enable us to take a dignified place in even the college pedagogical world, it is to me most lamentable that we are willing still to sit idly by, obscured by a misty web of traditions, which meanwhile fail to let our light shine out from under a bushel. Unquestionably the kindergarten needs the best the college can give to bring out its true perspective, while the college needs the kindergarten and elementary schools to put it in touch with practical human problems. In this Observation School we have demonstrated beyond a doubt the working practicability of the thorough basic principles which were enunciated in the beginning of this paper, and the observed results have been put in black and white from the college professor's standpoint. It is possible to sweep away the misty envelope of sentimentality and symbolism from the old-time kindergarten and make it an active, telling integer in the ordinary public school and not a mere superficial yokefellow, sending on its lovely transforming force and spirit into the regular grammar grades, and making for oneness and righteousness throughout the school. It is possible to sustain a truly modern kindergarten as an evoluting organism, free from the trammels of limiting Froebelianism, merely, strong in the strength of the most scientific pedagogy and brightly glowing with the fire of Froebel's own love and enthusiasm.

FRANCES BRACKEN GOULD

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TEACHERS' SCHOLARSHIPS IN SUMMER SCHOOLS

The success last summer of an experiment in the direction indicated by the title of this article prompts me to give it such publicity as appearance in the EDUCATIONAL REVIEW will insure. It was in brief a plan to provide scholarships on which teachers in normal, high, and grammar schools could study in such summer courses as they and their superintendents thought advisable. The plan occurred to me after

talking with the master of a grammar school in a New England city of moderate size, and learning that among his duties were the supervision and development of the teaching in a certain subject through all the grammar schools of the city. The duty involved, first, holding nine or ten meetings a year with all the lower teachers, in order to instruct them in subject and method; second, visiting the various schools in order to see how far his instruction was carried out.

In response to my question, the master admitted that the time thus allowed for meetings with the teachers was entirely inadequate to the needs of his subject; and that without more time there could be little expectation of discovering satisfactory advance in class work when he visited the schools. He admitted further, as I think all candid observers must admit, that while the previous studies of a high-school or normal-school graduate may warrant her being given the position of "teacher" in our public schools, all that can as a rule be safely claimed at the beginning of her career is: "She seems to be of the right material; she may become a good teacher in time." The essential steps toward her success are continued study of subjects, as well as extended practice and experience in her art. It was to afford means of continued study that the master above referred to met the lower teachers nine or ten times a year; and yet he had to admit at the end of it that so small a share of time hardly served to do more than to prevent retrogression; it failed to secure substantial advance. "Is there not," I asked, "some practicable plan that promises greater success? For example, cannot some of your teachers spend part of their vacation in a summer school, and learn there in a few weeks of continuous study much more of a subject than you can present in a whole year of meetings, only an hour long, once a month?" "It is too much," he answered, "to expect attendance at a summer school from most teachers while their salaries are so low; they would enjoy the summer study, but they cannot afford the expense involved in the necessary journeying, fee, boarding, and so on." "Well, then," I suggested, "can your city not devote some small share of its school fund to summer scholarships, sending a few

teachers to attend some appropriate course every year, and thus obtain a fair measure of substantial results, instead of standing content with shadows?" Unhappily, it had to be agreed that to put such a project into operation would be impossible or extremely improbable at present; and there, for the time, the subject was left between us.

It was only on talking over the problem a little later with a member of the Women's Education Association of Boston that the possible aid of that body was thought of. Being given opportunity a short time afterward to speak on the subject at a meeting of the Association in April last, I found that the plan was most hospitably received. After brief discussion it was referred to the committee on public schools with favorable recommendation, and with the grant of a small sum of money for scholarships. A little later a circular was issued by a subcommittee, consisting of Mrs. Ellen H. Richards, Miss Bertha Hazard, and Miss Mary M. Foster; the following extracts from the circular indicate how fully the problem was appreciated:

> The great increase in the number of summer schools during the last few years shows clearly that these schools, in spite of the many objections which have been made to them, do in reality meet a need in the life and work of the teachers of to-day. It is undoubtedly true that a teacher in normal physical condition can profitably spend a few weeks in looking at a subject from a pupil's point of view. A person who has been teaching for a number of years needs to take a different standpoint, and to find that there are two sides to a question. Furthermore, the methods of teaching and the apparatus available are constantly changing. It is a great inspiration to be a learner again, in common with persons of different experiences. For a teacher in a small town, it is even more valuable than for one in a city to go to a large educational center and to see what is being done in the various lines of study.
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> In the summer schools which have been established by many of our universities and colleges instruction is given by some of the ablest and most progressive teachers of the country, and the opportunities for laboratory and field work are excellent. It is believed that enthusiastic teachers may gain great inspiration for their severe work by placing themselves for a few weeks under the guidance of these men and women who are leaders in their own departments.
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> The Woman's Education Association of Boston has established this year several scholarships for work in the summer schools. . . The Association urges women's clubs, and other organizations of women interested in public-school work, to establish similar scholarships, or to select at least one of their young teachers who shall be sent to one of the best of these college schools.

Shortly following the above paragraphs was a list of places where summer courses were to be given, including Amherst, Chicago, Clark, Cornell, Harvard, Institute of Technology, Teachers College, and Wellesley. The circular was sent in May to all the Women's Clubs in New England, in the hope that the plan might be put into operation at many places; but the late date at which action was begun seems to have allowed no time for any accomplishment elsewhere—excepting in one submetropolitan city, Medford, the home of the member of the Association to whom I had first broached the subject; and of this, more below. In Boston the matter was actively taken up. The small appropriation from the Association was increased by special subscriptions to nearly four hundred dollars, sufficing for "nine and a half" summer scholarships. The plan gained the favorable opinion of members of the School Board, of the superintendents, and of various supervisors. These officers, aided by the masters of the schools, nominated to the committee a list of teachers as candidates for the scholarships: the candidates were visited by two members of the committee, and choice was thus made of ten beneficiaries "who could profit most from the opportunity." Although no formal action has at this date been taken by the Association regarding a continuation and expansion of the plan for next summer, several members have individually expressed themselves as very well satisfied with the experiment and desirous of its repetition another year.

In the city of Medford, five miles north of Boston, the scheme was fostered by the Women's Club, and warmly supported by the superintendent of schools. Many dollars were gathered by special subscription, individual contributions being limited to small amounts. Two teachers selected by the superintendent were thus enabled to make their vacation much richer than it would have been by pursuing the usual objectless relaxation of vacation time.

The success of the plan in Boston and Medford gives reason to hope for its adoption in many other places. A small allotment of State funds would aid teachers in normal schools to keep in touch with educational progress elsewhere; and

this would be nothing less than economy to the State. In time, funds to provide summer scholarships for teachers may become standard objects of public benefaction. So far as I know, this ideal condition is at present realized only at Indianapolis, where the "Gregg fund" is a unique treasure among the many advantages of our public-school system. This fund came to my knowledge only after the work in Boston and Medford had been carried to the stage stated above. It seems that as long ago as 1876 Mr. Thomas D. Gregg, a native of Vermont but for some years a resident in Indianapolis, bequeathed a considerable sum of money, now amounting to twenty-two thousand dollars, to the school board of that city "for the advancement of education." There was for a time some doubt as to the best manner of applying the annual income of fourteen hundred dollars to the purpose so broadly designated, but it was finally decided to devote it to scholarships for teachers in the city schools; this plan being the invention of Mr. L. H. Jones, then superintendent of schools, Miss N. Cropsey, assistant superintendent of schools, and Miss E. B. Ridenour, assistant secretary of the school board. The first appointments were made in 1894. Since then, six beneficiaries of the fund have attended summer schools; two have spent an academic year in working at a college or university in this country; and two have enjoyed a year of study in Europe. Indianapolis is already well known for what Mr. Jones and his associates have done for its schools; but the possession and application of the Gregg fund give it the lead in an unexpected direction, not so widely known as it deserves to be.

Both temporary subscriptions for special scholarships and the formal establishment of scholarship funds are to my mind important supplements to our educational system, and the first supplement is very likely to lead to the second. For this reason I urge both, but especially the first, upon the attention of school superintendents and local organizations that may be more or less interested in educational progress. Once admit that a newly enrolled teacher has yet much to learn about her subjects of teaching as well as much to gain

from experience in her art, and it follows that systematic provision of opportunities for study on the part of teachers is an important element in the public-school system. The special exercises for teachers conducted by a master, and the establishment of teachers' institutes, show that this element is already recognized. These exercises should not be diminished, for they accomplish a certain amount of good, but they are not the equivalent of systematic study in a good summer school. They are too brief, too interrupted, to add much to the teacher's knowledge of her subject. They serve rather to give encouraging suggestions than to build up thorough understanding. But a summer course in which four, five, or six weeks of work are given to one, or at most to two subjects, will supply an effective addition to a teacher's equipment, and the general establishment of teachers' scholarships will make good summer schools much more accessible than they are to-day. If the best of the younger teachers are selected to be scholarship holders, and if they continue their summer work through several seasons, it is fair to expect that they will show marked advance in their profession.

It remains only for me to say a word on the mooted question of the advisability of summer work for teachers who have been working hard through the year. From what I have seen of summer classes for a number of years past, I believe that five weeks of a vacation may be safely given to study by a teacher in good health. The chief reason why so much summer work can be easily borne is that its character is entirely unlike that of the work through the rest of the year. It is free from all responsibility. The teacher does not have to exert control over anyone else. The surroundings are changed, the subject of work is one that attracts her, the association with professional comrades is enlivening. My own experience assures me that in a college summer course both the professor in charge and the teachers in attendance find their association an enjoyable inspiration.

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VIII

REVIEWS

A manual of Greek antiquities—Books I.–V., by PERCY GARDNER, M. A., Litt. D., Professor of Classical Archæology in the University of Oxford. Books VI.–IX., by FRANK BYRON JEVONS, M. A., Litt. D., Classical Tutor in the University of Durham. With illustrations. New York: Charles Scribner's Sons, 1895. 736 p. $4.00.

Perhaps no task among those which confront the conscientious teacher of the classics in English-speaking countries is more difficult than that of arousing in his pupils a lively and sustained interest in the life and customs of the ancient peoples, unless it be to satisfy this curiosity when it is once excited. The literature of the ancient Greeks gives, it is true, countless hints, but these oftener raise questions than they suggest the answers to them; and few classical teachers among us have had the opportunity of an archæological training which would enable them to go to the sources, inscriptional and artistic, whence have come of late years such large additions to our knowledge of the manners, customs, and beliefs of the ancient Greeks. The gratitude of all teachers and friends of the classics is therefore due to Drs. Gardner and Jevons for their very successful endeavor to furnish a guide through the labyrinth. It is "an attempt," as the authors say in their preface, "to compress into a single volume, for the use of students, an introduction to all the main branches of Hellenic antiquities—social, religious, and political." Each author is responsible entirely and solely for the part contributed by him.

The scope of the work will be best shown by a running summary of its contents. Beginning with the physical peculiarities of the country, Dr. Jevons treats of the environment of Greek life; of the cities, built in the most ancient times on heights near the sea, and gradually, with the increase in security of life, spreading to the lower ground adjacent, the hills remaining as the citadels and chief sanc-

tuaries; of the Greek house, in Homeric and in later times; and of the dress of men and women.

Book II (Religion and Mythology) and Book III (Cults) together occupy nearly a third of the book, and form perhaps its most valuable portion. It was just here that great detail was necessary. Greek religion was so different from the "religions of authority" to which the modern world is accustomed that the teacher must incessantly be on his guard to prevent the formation of false impressions in the pupils' minds. Dr. Gardner discusses the formative elements, both native and imported, of Greek mythology and religion, taking account of the most recent writers on comparative religion. Under the head of native elements he shows how large a part was taken respectively by totemism, by ancestor-worship, and by naturalism. The chapter on the borrowed elements is briefer, but sufficiently full to show the great range and complexity of foreign influence. In his discussion of the Greek Pantheon Dr. Gardner lays great stress on the lack of fixity and organization. "The religion of the Hellenes, as it is presented to us in Greek literature and history, is undoubtedly a much-compounded thing. . . . It is also vague and fluctuating in the highest degree." "The common notion in regard to Greek paganism, a notion most superficial and incorrect, is that the Greeks in general, throughout their history, accepted a certain hierarchy of deities as the ruling powers in the world, and were quite at one as to the provinces of these deities, their parentage, and their relations one to the other." The chapters devoted to this subject, and not less those on the cultus, show strikingly the absolute falsity of such a conception. The description of the cultus is especially good in the treatment of oracles, divination, and mysteries, and in connection with them is given an excellent account of the great public games and festivals, and of the calendar.

Book IV treats concisely of the course of the individual's life from birth to the grave, and Book V of commerce.

The second half of the work takes up first the political and legal side of Greek life, tracing in succession the devel-

opment of various state-forms, among which the Athenian polity naturally occupies the chief position. An entire chapter is devoted to the very interesting and important code of law discovered at Gortyna in Crete in 1884, and now most probably assigned to the middle of the fifth century B. C. Book VII discusses the subject of slavery, while Book VIII treats, perhaps rather too briefly, of land and naval warfare.

The final book gives an excellent account of the mode of presentation of the Greek drama. Dr. Jevons, in the lively manner well known to the reader of his History of Greek literature, takes issue with the commonly received theory that the Greek drama originated in vintage festivals in honor of Dionysus, he assigns its beginnings rather to rustic celebrations held at the time of the winter solstice, and makes very effective objections to the much-discussed "no stage" theory of Dörpfeld. An awkard misprint should be noted in line 4 of page 671, where "strophe" should be "antistrophe."

The illustrations (of very unequal execution) are relatively few in number, but well chosen, the authors preferring to recommend Schreiber's *Atlas of classical antiquities* for more extended reference.

One of the chief merits of the book as a whole is that it constantly invites to continuous reading, and does not serve merely as a work of reference. The attitude of the authors toward disputed questions is praiseworthy; mooted points are frankly stated as such, and the arguments for and against are succinctly given. No classical teacher can afford to do without the work, or fail to profit by the careful perusal of it.

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The number concept: its origin and development—By Levi Leonard Conant, Ph. D. New York: Macmillan & Co., 1896. 218 p. $2.00.

To all who are interested in the early history of mathematics, or who subscribe to the creed that the development of the child is along the lines of race development, this work on

the number concept will be of interest and of value. It is true that one would hardly guess from the title that the subject in hand is merely a history or a comparative philology of counting; little more, indeed, than an elaboration of the entertaining chapter on the subject in Tylor's *Primitive culture*. But although one may possess the concept "number" without articulate language, and with no special base for a system, so that this work, largely devoted to number language and number systems, might appropriately bear another name, this matter is of little moment. The great question is whether the work is a valuable contribution to science.

The general scope of the study may be seen from the table of contents. Counting, and especially the use of the fingers in this operation, number system limits, Origin of number words, Bases, the Quinary and vigesimal systems—this is the field of inquiry. Starting on the lines laid down by Tylor, the author has examined most of Tylor's authorities and drawn still further from them. He has then looked into many of the current works on travel and collected the number systems of the various tribes there reported, and these make up a great part of the work. Such a collection is valuable, and for his patience in its preparation the author deserves the thanks of the scientific world. Here indeed the merit of the work may be said to lie, rather than in the use which the author has made of the material collected.

From this it must not be inferred that no valuable conclusions are drawn. For example, the criticism of Hankel's rash assertion that ten is nowhere expressed as two fives is worth a great deal. It is an opinion so amply supported that no one would question it. But in spite of frequent expressions of a critical spirit—as in the statement that "the theory has finally taken possession of the author and reduced him to complete subjugation instead of remaining his servant and submitting to the legitimate results of patient and careful investigation"—the author permits himself to do the very thing which he condemns in others. For example, on Lieutenant Cushing's suggestion that the savage, his weapons being tucked under his left arm, naturally holds his lifted hand so as to begin the score on the little finger, the author exclaims, "Here, then, is the reason for this unaccountable phenomenon." Again, to use his own words, referring to quite as reasonable an hypothesis, "we certainly have no evidence with which to disprove this;

but before accepting it as a fact, or even as a reasonable hypothesis, we may be pardoned for demanding some other evidence."

It will also strike the reader, no doubt, that the author is not entirely consistent in his treatment of evidence. For example, not to question the assertion that the Zuñi always says "ässiästem'thlanak'yënästem'thla" for a thousand, has he really preserved the primitive meaning of all of the numerals, so that "awite," four, is generally recognized as identical with "all the fingers all but done with"? and is it true that "the simple structure of many of the rude languages of the world should render this possible in a *multitude* of cases"? Again to quote the author against himself, "The above are so unlike anything else in the world that they are not to be accepted without careful verification." "These *ignes fatui* of the philologist would never have existed but for their own treacherous suggestions." "No evidence is given to substantiate the assertion; it is to be received with great caution."

This tendency to summarily dismiss views antagonistic to his own is further seen in the author's treatment of the octonary system: "Altogether, the reasons that have in the past been adduced in favour of this form of arithmetic seem trivial." As Professor W. Woolsey Johnson looks over his article on the subject (*Bulletin of the New York Mathematical Society*, I, 1) he can see himself as at least one "ither" sees him.

Without going into a consideration of authorities, a field not wholly barren, a few minor questions may be asked without wishing to be hypercritical. Is the author justified in characterizing Grimm as "the highest authority" on language? Does he not lead the reader to attribute the phrase "*Numero Deus impari gaudet*" to Leibniz, while as a matter of fact Vergil gives practically the same form, and "*Deus imparibus numeris gaudet*" is still older? Is the habit of our modern salesman and of "our special correspondent" perverting the taste of our generation in respect to what M. de Heredia has characterized as "the hateful 'me'"? Some passages may cause the reader to fear it.

On the whole, with however much pleasure and interest one reads the work, when after a while he gets it in perspective he will probably reach these conclusions: (1) the book is valuable for its collection of historical material; (2) the scientific world is indebted to the author for his patience in making this

material accessible; but (3) there has not been shown the historic instinct in the weighing of evidence, and the conclusions are not commensurate in value with the data adduced.

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Essays on Scandinavian literature—By HJALMAR HJORTH BOYESEN, Professor of Germanic Languages and Literatures in Columbia College. New York: Charles Scribner's Sons, 1895. 288 p. $2.00.

At first thought it may seem that a volume of essays on Scandinavian literature would contain nothing of special interest to the readers of the EDUCATIONAL REVIEW. But Professor Boyesen's last book in fact offers much that is of direct and inspiring instruction to the true teacher. In addition to a brief chapter on contemporary Danish literature, the volume is devoted to a biographical and literary sketch of six authors: Björnstjerne Björnson, Alexander Kielland and Jonas Lie of Norway, Hans Christian Andersen and Georg Brandes of Denmark, and Esaias Tegner of Sweden. Although but two of them (Tegner and Brandes) have been teachers in a pedagogical sense, all of them have in a broader sense been truly and earnestly teachers of men; and, thoroughly original and potent characters as they have been in the literary development of the Scandinavian North, their lives are fraught with instructive lessons and fruitful inspiration. This is especially true of Björnson, who has fought incessantly and indefatigably for high principles in government, in education, and in social life generally. As a leader in thought and a molder of public opinion, he has been persistently vilified and assailed. But the absolute fearlessness with which he has for years faced the arrows of a malignant conservatism is a lesson in moral courage.

Professor Boyesen would not have made a mistake if he had allowed his essay on Björnson to become a companion volume to his *Commentary on the writings of Henrik Ibsen*. As it is, it occupies more than one-third of the book, and the author says in his preface that "only the most heroic condensation saved it from challenging criticism as an independent work." The American public is prepared for an independent work on Björnson. Some of his works are fairly well known here, he has visited this country, is an ardent admirer

of American institutions, and, all in all, a man whom Americans would take to. Professor Boyesen's essay will, however, do much toward securing for Björnson that general recognition in this country to which his great talents justly entitle him.

Of the authors discussed it is especially Björnson that will interest the teacher. And this is not the first time that this fact has been noted. Horace Scudder, in the *Atlantic Monthly* for Febuary, 1891, in an article on "The Educational Law of Reading and Writing," cites Björnson's story, *A Happy Boy*, as the best example he knows of a study in the nature of a child. He speaks of Björnson's having "that insight into a child's mind which seems to be a special gift to Scandinavian writers." The story referred to is one that every teacher might read with profit. A word of admonition is necessary, however, not to let its rustic simplicity deceive one into an underestimation of its artistic and psychological merits.

Björnson does not write to amuse. Untouched by Ibsen's pessimism, he resembles him in this, that he is "fearfully in earnest." He is a born teacher and leader. Whether as poet, dramatist, novelist, controversialist, or politician, he always reveals his pedagogical proclivities. He has led the Norwegian people of to-day, now chiding, now encouraging, as the schoolmaster in *A Happy Boy* led his *protégé* through the days of happy childhood and disappointed youth into triumphant maturity. He has been in the vanguard of the Norwegian people in their intellectual progress of the last thirty years. As a writer, he has passed through the various phases of modern literary development from the idyllic idealism of the peasant story to the scientific realism of the modern novel. But he has never forgotten that he is a poet. In discussing the social problems of to-day, he throws upon them the searchlights of modern science, but he finds nothing in human nature so dark and vile as to dim the hopeful radiancy of his poetic eye.

It would be interesting to speak more in detail of the other authors sketched by Professor Boyesen, if space would permit. Lie and Kielland, for instance, are literary personalities of rank, whose careers are fraught with suggestive incident. These essays will no doubt arouse in students of literature a desire to know more about them. The other writers, except those mentioned in the chapter on contemporary

Danish literature, are better known in this country. Hans Christian Andersen is a household name here as well as in Europe, but Professor Boyesen's graphic portraiture of him is welcome, as it presents more vividly and accurately than has ever been done before in English, an old familiar literary physiognony. Esaias Tegner, the famous Swedish poet, is also well known to American readers as the author of *Frithiof's Saga*, a poem which has found several American translators, and as the author of *The Children of the Lord's Supper*, which, through Longfellow's admirable translation, has almost become an English classic. Boyesen gives a frank and spirited account of this intellectual giant of the North. He speaks plainly concerning some of his weaknesses of character, without, however, affecting the reader's sympathy and love for this genial poet.

Professor Boyesen was in his Scandinavian studies a close student of Georg Brandes, the great Danish critic, and does him due honor by ranking him with Lessing, Matthew Arnold, and Taine. Boyesen bestows high praise upon him for his intellectual powers. But in spite of this admiration for the literary critic, Boyesen administers a most scathing rebuke to Brandes the man, in view of the "Mephistophelian countenance" he has unmasked in some recent essays which touch on certain social and political questions.

Geographically speaking, the Scandinavian countries are an unimportant part of Europe, but in the modern literary world they will collectively rank fourth. Each has developed an independent literature, and in reality the field is a much broader one than the casual observer suspects. Professor Boyesen's book gives ample evidence of a thorough familiarity with the literary development of all three countries, and I doubt whether anyone unacquainted in the vernacular with the field of letters treated in his essays can appreciate the *tour de force* he has accomplished. The presentation, morevever, is admirable. The style is direct and racy, revealing the robustness of the author's Norse temperament, and at the same time contains a wealth of felicitous comparison, cosmopolitan in character, that makes these essays of value to the general student of literature.

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Algebra for schools and colleges—By WILLIAM FREELAND, A. B., Head Master of the Harvard School, New York City. New York: Longmans, Green & Co., 1895. 309 p. $1.40.

The ratio of supply to demand, in the production of algebras of a certain grade, may be expressed by a comparatively large antecedent. In Freeland's *Algebra for schools and colleges* we have a text-book which fulfills in a large measure all that is claimed for it by its author, but which does not supply a "long felt want" for the reason that many books drawn from the same sources, and possessing equal merits, have preceded it.

Inasmuch as its scope is that included in the course of the average preparatory school, its title appears somewhat pretentious. To criticise the book upon its own merits, however, is to accord to it a high degree of excellence. In its arrangement of topics and selection of material, much attention has been paid to continuity of thought and careful notation. It is possible that the distinction between the character of quantities and the processes of addition and subtraction could have been better shown by a closer connection of the discussions. The commutative, associative, and distributive laws are neatly demonstrated in their proper relation to the topics of addition and multiplication.

Brevity of statement is commendable only where there is no sacrifice of the thought contained therein. The statement of the law of signs in Article 51 is traditional in its form, but hardly preserves the distinction between the character of quantities and the operations existing between them. Articles 53 and 67 seem to call attention to the signs rather than the character of the quantities considered.

There are some instances where the treatment of topics is mechanical. In these the untrained mind will fail to comprehend the processes by which it arrives at results, and little power will be gained from mere methods of operating.

A rigid demonstration of the method for finding the H. C. F., may be difficult for the beginner, yet some attempt should be made to illustrate and apply its fundamental principles. A process of such limited application might well be taken out of its traditional order and deferred until the student had gained more power in reflective analysis. From this point of view the treatment of fractions is unfortunate. The fundamental processes of this topic afford an excellent opportunity of generalizing arithmetical analysis. A careful

application of the principles illustrated at the beginning of the chapter would add a value to the study and would influence the work of the student throughout.

Excellent features of the book may be found in the adequate treatment of factoring, in the discussion of the theory of exponents, and in the chapter of radicals. The form of the demonstration of processes is here exceptionally fine, the whole showing a nice sense of logic which "looks at the end from the beginning."

It would be difficult to find a book containing a better selection of exercises, or one in which the publishers have more carefully interpreted the author's ideas of arrangement.

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NOTES ON NEW BOOKS

Mention of books in this place does not preclude extended critical notice hereafter

Professor Crawshaw's *Interpretation of literature* is a very brief but suggestive study of literary forms and standards (New York: The Macmillan Co., 1896. 235 p. $1.00).——The exquisite Parnassus Library of Greek and Latin texts has been enriched by an edition of *Catullus*, edited by Professor Palmer of the University of Dublin (New York: The Macmillan Co., 1896. 98 p. $1.10).——*Studies in structure and style*, by Mr. Brewster of Columbia, is another tribute to the "new rhetoric" (New York: The Macmillan Co., 1896. 280 p. $1.10).——Mr. Bardeen's *Manual of common-school law* is brought down to date and enriched with new material. It is indispensable to the New York teacher, and valuable to anyone (Syracuse, N. Y.: C. W. Bardeen, 1896. 290 p. $1.00).——Professor Eckoff, who knows Herbart more thoroughly, probably, than any other American student, contributes to the International Education Series a scholarly translation, with an introduction and notes, of *Herbart's A B C of sense-perception* (New York: D. Appleton & Co., 1896. 294 p. $1.50).

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IX

EDITORIAL

As this issue of the REVIEW reaches its readers, the people of the United States will be engaged in the act of choosing a Chief Magistrate in accordance with the forms prescribed by the Constitution and the laws, and in indorsing a declaration of political principles that will guide the incoming Administration for the term of four years. Issues of the greatest magnitude are at stake. The American people have successfully met two great crises. They rose superior to sectional jealousies and personal ambitions, and welded the Thirteen Colonies into a nation, an indestructible union of States. Nearly a century later they demonstrated on the field of battle that this Union, made by the fathers, *was* indestructible. They are now face to face with a crisis that is, in our judgment, more momentous than either of those that have gone before. Democracy, as a form of government, is on trial for its life. For the supreme test of democracy is made when the great mass of the adult male population, endowed with the right of suffrage, is appealed to to put an end to poverty, idleness, and distress by striking a blow, through the ballot, at their more prosperous and fortunate fellows as well as at the very corner-stones of our civilization—law, order, and faith in the integrity and honor of one's fellow-men. It is five hundred years since Wat Tyler and his peasant followers marched to London. It is more than a hundred years since the Paris mob howled its way out to Versailles. Much may be said in extenuation or excuse of both outbreaks; but what shall we say of men who, almost at the dawn of the twentieth century, in the Great Republic where all have equal opportunities and privileges, where no great accumulation of wealth has outlasted three generations, and where few men are wealthy whose parents or grandparents did not work with their hands—what shall we say

of those who, under circumstances such as these, seek to inflame men's passions and feed their baser desires by asserting that this great nation is divisible into sections or classes whose interests are antagonistic, and by endeavoring to array the shiftless, the poor, and the unfortunate against the industrious, the thrifty, and the prosperous? Such appeals and such attempts have been made many times daily since July last, not by irresponsible fanatics, but by men wearing the livery of a historic political party and put forward for the highest offices in the several States and in the nation.

Ignorance may be forgiven much, malice nothing. It is easily conceivable that ignorance, or different points of view among intelligent men, may account for the markedly antagonistic opinions that are held—on the question of finance, for instance—by the American people. But ignorance does not promulgate forged letters and quotations, nor does it haul a few sentences from their context in the speeches of a dead leader, and so utterly misrepresent his convictions as to a subject of great present importance. Ignorance does not incite to riot and rapine. In all this there is deep-seated malice, which is directed—it can hardly be unconsciously—against the foundations of society. Nor is it ignorance that urges men wholly untrained in any intellectual pursuit, to believe that they are as competent to decide between truth and error in a vexed field of economic discussion as those highly trained minds that have devoted years to its study. If this be a tenable position, then our two hundred million dollars spent annually for education are wasted, and our schoolhouses are cumberers of the ground. When such incendiary doctrines are preached, it is time to recall the weighty words of Francis Lieber, who said: "Woe to the country in which political hypocrisy first calls the people almighty, then teaches that the voice of the people is divine, then pretends to take a mere clamor for the true voice of the people, and lastly gets up the desired clamor."

It must be that the teachers of the United States are substantially unanimous at this time. It is not possible that on November 3 any considerable number of them will march to the ballot-box in company with a man who

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has disgraced and defiled the Senate of the United States with his indecent language, with a man who has held out the protecting arm of a great Commonwealth to shield riot and anarchy, or with a man who has traveled thousands of miles through the country sowing the seeds of political and social revolution by reciting falsehoods to his audiences and by stirring up class hatred among them. If there be any single teacher who, for local, personal, or economic reasons, feels any temptation to vote in company such as this, we ask him, before preparing his ballot, to read *twice* this extract from the resolutions adopted by unanimous vote and with tremendous enthusiasm by the National Educational Association at Asbury Park in 1894:

> The National Educational Association has assembled at a time of marked public disturbance and of grave industrial unrest. The highest powers of the nation have been invoked in time of peace to enforce the orders of the courts, to repress riot and rapine, and to protect property and personal rights. At such a time we deem it our highest duty to pronounce emphatically, and with unanimous voice, for the supremacy of law and the maintenance of social and political order. Before grievances of individuals or organizations can be considered or redressed, violence, riot, and insurrection must be repelled and overcome.
>
> Liberty is founded upon law, not upon license. American institutions are subjected to their severest strain when individuals and organizations seek a remedy for injustice, fancied or real, outside of and beyond the law. . . We heartily commend the wisdom and firmness of the President of the United States, as exhibited at this trying time, and we pledge to him and his associates in the conduct of the government, our hearty and enthusiastic support in the enforcement of law and the restoration of order. We must, at the same time, record our perfect confidence in the capacity of the American people to grapple with any social problems that shall confront them. Riot, incendiarism, and conspiracy are not native growths, but have come among us by importation. They cannot long survive in the clear air of American life.

In the voluntary withdrawal of Mr. Daniel R. Cameron from the presidency of the Chicago Board of Education, the highest interests of that great community suffer a severe loss. This loss is emphasized by the very frank and very powerful recommendations that Mr. Cameron made to his colleagues in his last annual report. The fact that boards of education in large cities are too much burdened with detail and are

thus continually tempted to meddle with matters that they do not and cannot understand—a fact that may be abundantly illustrated from the recent history of New York, Chicago, Brooklyn, Boston, and other great cities—is clearly perceived by Mr. Cameron, and he makes this striking argument for a more skilled and responsible management:

I take the liberty of proposing and advocating a measure contemplating a radical change in the policy of the business management of the affairs of this Board. I believe that the history of this department will justify the judgment that the economic interests of this Board have not been subserved, nor can they be promoted, by our current methods of business. The conflicting phases of semi-responsibility in the direction of minor interests render it impossible to fasten accountability upon any one man or set of men. Definite responsibility and exacting accountability should ever be the underlying and governing principle of every organization to which is committed fiduciary trust. If our affairs were conducted upon the plan or by the methods pursued in such private enterprises as great business houses, large banking corporations, or extensive railroad directories—and why they are not, I am at a loss to conceive—I feel sure that, within an incredibly short period of time, we should realize a marvelous and gratifying change for the better in the administration of the business affairs of this Board. Division of labor is a prime principle of industrial economy, only when each department is made subservient to the interest of the whole of which it forms a part. Not the least noteworthy application of this principle is found in the employment of certain true and tried men, whose office it is to give direction to and to hold in review the agencies necessary for the conduct of any large business interest. As there is a governing principle, so there is in all successful enterprises a governing power. A clear, well-balanced mind is seldom at conflict with itself, hence the wisdom of making selection of one responsible head of affairs, to whom may be committed the management of the same, but who is empowered to work out his own plans with an eye single to an accountability that is commensurate with his trusted powers.

Could this Board see its way clear to the adoption of such a measure governing the management of its business, I humbly and confidently submit it would insure such a conservation of its interests and secure such an improvement in the conduct of its affairs as would carry conviction of the wisdom of such a provision to the most incredulous.

It is my belief that a competent man of affairs, with large executive powers, conversant with men and values, informed as to the mutual interests of all parties concerned in the financial transactions of the Board, inflexible in demanding and dispensing justice in all matters of reciprocal interests, if chosen to act in the capacity of, let me suggest, a business director of all its business affairs, subject always to review by the Board, at a liberal salary, would, by the introduction of business methods into the administration of our affairs, effect such a saving in our expenditures as would compensate for his salary many times over, and bring about a more rational system of procedure in all our business relations. From a merely financial point of

view, from an enlarged business point of view, from a point of view of a sensate regard for every economic administration of the interests of the Board, it would seem that we ought to set the seal of our approval on this measure. Of course such an officer should have privileges and powers commensurate with his responsibilities, and nothing should be exacted of him except an economical and businesslike conduct of affairs. By such a provision, I am fain to believe there would show up annually a large gain on our balance sheet, sufficient for the erection of several school buildings, and the members of the Board would be left free to their legitimate duties, in committee and Board sessions, to pass upon matters of legislation and a review of the work of employees.

Well-informed readers will see in this suggestion an approach to some features of the system of organization that is understood to be working so well in Cleveland.

Mr. Cameron also devotes some space to the normal-school question, and what he says must be pleasant reading for Superintendent Lane and Colonel Parker, who are working so hard to improve the standards of teaching efficiency.

That our teachers, with but few exceptions, have been rendering a fairly acceptable service, doing what they can to elevate and exalt the character of the instruction and discipline in the schools, to secure a degree of greater efficiency in the direction of sound and healthy moral impulses; they have and do contribute in large measure to the growth of a desire for better scholarship, greater power of thought, and sound ideas of correct living. Pupils graduate from these schools stimulated to nobler efforts in the avenues open to them, actuated by loftier views of the dignity of human life, and equipped with characteristics and bias in favor of the supremacy of justice and right. This much may be predicated of the schools at this present, yet we are far behind the ideal that should obtain in the work of teaching. Much is done, but more might be reasonably expected, if our teachers were educationally trained, or lifted to higher standards in scientific methods of instruction. To this end, the Board of Education, recognizing the fact that one of the essential adjuncts of every well-organized system of public schools is a well-equipped and well-conducted normal school, has accepted with peculiar satisfaction, from the Board of Commissioners of the County of Cook, State of Illinois, the gift of the school property known as the Cook County Normal School. It is assumed in this connection that, in the ratio in which a system of schools is provided with teachers for their work, who are well equipped by the study of educational methods under the competent supervision and instruction of men and women who stand for correct ideals and the philosophy of teaching, so will be the quality and efficiency of the means employed in the schoolroom for the instruction of the children of the city. Much that was satisfactory, even beyond expectation, was accomplished toward fitting young men and women for the highly important duties imposed upon the teaching force in our late Training School.

the eminent success of which has fully justified the establishment and maintenance of the school, and was and is an unanswerable argument in favor of a scientific preparation for the special work of the teacher. The advantages of a normal training were fully demonstrated in the recognized improvement and increased efficiency of the work done by the graduate cadet. In the recognition of the great gain to the schools in thus affording a systematic training of the teachers, the Board of Education all the more willingly availed itself of the opportunity for enlarged facilities for this work afforded by the acquisition of a school regularly established and generously equipped for this purpose. The possibilities of this school, in its new and hopeful relation to the school system of Chicago, are perhaps beyond our power to estimate, but much may legitimately be anticipated of a training school wherein are found so many of the essentials of this department of school work. Teachers who intelligently comprehend the great scope of teaching, who are in possession of a critical insight into the nature and needs of child-life, and who live in an atmosphere of wholesome adherence to the principle that the teacher is for the child, are in the main they who have been scientifically inducted into better methods, and, of a consequence, are the most faithful in the execution of their work, and are the most loyal to their calling.

The justification of a normal school, it seems to me, is to be found in the increased efficiency of the service, the greater and more conscientious faithfulness to the spirit of the work, the more devoted consecration of the head and heart to the great ends implied in the teacher's calling. Normal training is justified on the ground that it is a paying measure, yielding more than it receives. What it confers on the cause of education is many times beyond the original current cost. It implies wholesome agencies, whose energies are ever making for a better, higher, and nobler type of manhood and womanhood. We shall watch with no qualified interest the training of the teachers under the new auspices. With all that may be rationally hoped for concerning the interests of the schools from this quarter, I beg leave to renew the expression of my conviction that it is not, nor will it ever be, the part of wisdom to surrender exclusively the teaching in the schools to young and inexperienced normal graduates. We cannot afford to turn a deaf ear to the applications of teachers who have gained a valuable experience in other localities, obtained under differing conditions, whose habits of thought and physical and mental modes of life have given them healthy mental vigor, and whose energies are so charged with an intellectual and moral catholicity of interest and a broad sweep of power that by them new life and vigor may be infused into the school life. I would then offer the fullest encouragement to the admission of competent teachers whose training and experience have been obtained in other surroundings and under other conditions than our own.

The attention of superintendents, particularly in the effete West, is respectfully called to the temporary regulations recently adopted in the progressive city of New York, touching the conditions of eligibility for appointment to prin-

cipalships in the public schools. These regulations were drawn by Boss Jasper, reported by his committee on instruction, and are now in force. They are guaranteed to protect the public schools of New York from young, highly trained, and specially educated principals, and to provide increased salaries and a life tenure of the work of reading the newspapers and filing reports for those of "the faithful" who have not been retired for age or physical disability. These are the rules:

> Candidates, if not teachers in the common schools of this city, must hold a certificate or diploma of graduation from a college or normal school in good standing, must have been regular class teachers in graded schools for at least fifteen years, and must present satisfactory certificates from the officers under whose supervision they have taught that their work as class teachers has been of a high order of merit.
>
> Candidates who are teachers in the common schools of this city must have been regular class teachers, with meritorious record, for at least twelve years.
>
> The examination shall include psychology, history of education, school management, science and art of teaching, rhetoric, logic, civics, and English literature, and, in the discretion of the City Superintendent, the subjects prescribed for a teacher's license. An estimate shall also be made of each candidate's physical and mental general fitness for the position of principal.

Perhaps the first comment to be made upon these rules is to call attention to the delicate suggestion that "runnin' twelve years wid de machine" in New York is worth fifteen years of classroom teaching elsewhere. This is doubtless a reminiscence of "fifty years of Europe" and "a cycle of Cathay"; but the curious-minded will ask, why 12 to 15? Why not 16 to 1? It may also be pointed out that Commissioner Harris, Presidents Eliot, Gilman, Low, and Schurman, Superintendents Maxwell, Seaver, Blodgett, Soldan, Lane, Dougherty, and a host of others, as well as most of the present principals throughout the country and not less than one-third of the New York Board of School Superintendents, are no longer eligible for appointment to principalships in New York. One sometimes learns the true intent of a rule by considering what it will prevent as well as what it makes possible. Even if Commissioner Harris had taught fifteen years in a regular graded school and were able to produce a "satisfactory certificate," he could not escape examination in

psychology and the science and art of teaching by the Learned and Self-Sacrificing Hunt, with Boss Jasper looking on. In the language of the lamented Mr. Squeers, " Here's richness! "

Intelligent persons are of course aware that no amount of successful classroom experience will necessarily equip a principal, and that many of the best principals have had little or no classroom experience whatever. Such persons are also aware that it is a great advantage to a city school system to bring into it as many principals and teachers as possible from outside, and that it is bad policy to discourage such additions. They know, too, that some of the universities and normal schools now send out men and women specially trained for principalships and supervisory positions, and that these graduates are far more competent than most classroom teachers can ever hope to become. Progressive superintendents cheerfully admit their unwillingness to appoint to any position a person who has had twelve years' experience in the New York schools, even with the added triumph of a " meritorious record." But such considerations as these do not " go " in New York at present—to use a favorite expression of the Grand Street authorities.

Incidentally it may be added that the school law puts the examination of teachers and the making of an eligible list in the hands of the Board of School Superintendents and that neither the Board of Education nor the City Superintendent alone has anything whatever to do with it. In Grand Street they call this " a mere detail," however. But matters will improve after January 1.

The latest issue of the *Pedagogical seminary* contains an exceptionally useful and careful series of papers based upon observations of children. The thoughtful and suggestive article on the drawings of young children, by Mr. Lukens, may fairly be said to be the beginning of a research that may result in little short of a revolution in some of the methods of teaching drawing.

In the same issue, however, is a *résumé* of the work of the year in child-study, by Miss Wiltse, who takes

occasion to intersperse in her report some extremely silly *obiter dicta*. It is just such an attitude toward all other forms of endeavor as finds expression in these comments, that amply justifies the lack of confidence in some of those prominently associated with the child-study movement that many highly trained men of science have not hesitated to express. For example, it may be humor, or it may be *naïveté*, that prompts the hardly-veiled suggestion that the funds of the National Educational Association, now little more than sufficient to pay the expenses of the secretary and treasurer, should be turned over to a private institution to assist its work, all results to be printed by the N. E. A. without criticism or comment! It is a trifle contradictory, too, to describe a successful meeting of the child-study section of the N. E. A. and then to intimate that the directors of the N. E. A. are opposed to its work. It is a matter of record that at Asbury Park, in 1894, the child-study section was authorized by a vote of 37 to 4, and it was well understood that the four negative votes were cast by directors who thought that the work of child-study could be carried on under the auspices of departments then existing. In the previous year, at Chicago, child-study had occupied most of the attention at one of the Educational Congresses organized by the N. E. A., the proceedings of which were published and circulated at its expense. In 1894, too, the subject of child-study was given a most prominent place upon the programme of the general sessions, despite the fact that then, as is often the case still, the ideas of its leading representatives were extremely vague and unformed. As a matter of fact no applicant for official favor has ever been received by the N. E. A. with such open arms as child-study. Those whose chief interest lies in the kindergarten and in manual training could offer some interesting testimony on this point.

The fact of the matter is that child-study needs to be saved from its unscientific and hysterical friends. The sending-out of silly question-papers, haphazard, to be answered by persons of little scientific training, or none whatever, is not worth dignifying with the name of child-study.

The raking together of an undigested mass of alleged facts lacks something of being "research." And the ponderous platitudes and never-denied propositions that constitute many of the "results" thus far announced are apt to provoke a smile. To the best of our knowledge and belief it is exactly the reverse of true to say that "most of the conservative leaders [of the N. E. A.], old and young, are on record against it [child-study]." If any single one of the leaders, old or young, is on record to that effect, it has escaped our attention. Most of those leaders are officers in child-study societies or otherwise engaged in actively promoting the work. When the work is carried on in a truly catholic and scientific spirit—as is the case in Illinois, for example—and is not worshiped as a fetich or flaunted as a badge of party, it will fare better in the country at large.

On October 14 and 15 the school superintendents of New York State met in annual session at Utica. It was a noteworthy and momentous occasion. Boss Jasper was present for the first time on record. He has been so often criticised for not attending educational meetings and giving the results of his deep study and wide reading to his fellow-superintendents that even his excessive modesty finally revolted; and off he went. But somehow the full report of the meeting, published in the Utica *Herald*, gives the impression that most of Boss Jasper's study has been of his own interests and that his pedagogical reading has not progressed far beyond the statistics of his own reports. The Boss talked fluently and often, despite the fact that the Learned and Self-Sacrificing Hunt was away off in New York, looking through the encyclopedia for examination questions.

The first topic that Boss Jasper illuminated was "The teacher's tenure of office." Incidentally, he let fall the observation that "We in New York claim no superiority for our system." Can this mean that Boss Jasper has deserted Tom Grady, Johnny Ahearn, Pat Carroll, and the rest, and has joined the ranks of the despised "reformers"? This does not sound like the boastful confidence of last spring.

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But the Boss did not disclose the real reason for his trip to Utica until later. He did that when he introduced a resolution calling upon the superintendents to urge the legislature to enact substantially as follows:

> *Be it enacted*, That John Jasper be no longer subjected to the strain and anxiety of having such educators as Daniel C. Gilman, Charles W. Eliot, Andrew S. Draper, and others, eligible for election to the superintendency of schools in New York city.

Of course the Boss has lived too long in the shadow of Tammany Hall to overlook the necessity of putting his proposal in more general terms. So his resolution mentioned no names; but it attempted to accomplish the desired end by providing for classroom experience as a condition of eligibility for election hereafter to the post of City Superintendent. The humorist who proposed to amend by adding a recommendation that architects be hereafter required to serve a term as bricklayers and that professorships of physics be filled hereafter exclusively from the ranks of motor-men on the trolley lines, was not listened to; and the Boss's self-preservative resolution was ordered embalmed by the Committee on Legislation.

But Boss Jasper does not know as much about supervision as he does about school boards. So he naturally spoke with more freedom in the meeting of the representatives of school boards from different parts of the State. Among the polished gems of thought that there fell from the eloquent lips of the Boss were these:

> I should be sorry indeed to see our schools fall into the hands of the politicians. [Shades of Bolte, McCue, Carroll, Mundorff, Whalen, Stillings, *et al.!*]
>
> Possibly there might come into the board a graduate from Yale or a graduate from Columbia, who has the idea that all the schools must at once be turned into universities and perhaps made branches of Yale or Columbia, or whatever college it might happen to be that he happens to be a graduate from.
>
> We have now no women members of the board of education. They apparently lack that sympathy for women which women should have. We had four women in the board, and not one was in thorough sympathy with the female teacher.
>
> I was most entertainingly surprised to find in this morning's paper that I made the remark . . . that I intended to remain at the head of the New

York schools until removed by death. I can imagine the holy horror of my friend, Larry Godkin of the *Post*, when he reads that paragraph.

She [my wife] often wonders if it can be possible that I am the chap she married.

We submit that there are a refinement, a delicacy, and a logical force about these extracts that entitle them to remembrance. The boss ended his remarks with the statement that "As long as the so-called reformers of the New York schools have been hammering at the school administration of New York city, I have never made a reply or a statement of any kind in the newspapers." Boss Jasper must have forgotten that the *Commercial Advertiser* of May 20, 1896, printed an extremely diverting interview with him on the character and source of the opposition to his election as superintendent. But this is a "detail," as they say in Grand Street when their stories do not agree.

Mayor Strong has followed up his excellent appointment of Mr. Taft by naming Mr. John G. Agar as a member of the New York Board of Education to succeed Wehrum, resigned, Mr. Agar is a cultivated and accomplished gentleman, a public-spirited citizen, and a man for whom the "traditions of Grand Street" will have small attraction. His appointment was earnestly advocated by the reformers, and was accepted at no small personal sacrifice. By all appearances the cohorts of Boss Jasper have just four more meetings at which to display their low cunning and to air their ribald jests.

We are informed that an injustice was done to Assistant Superintendent Stewart of New York by the statement in this REVIEW for September that, as a Brooklyn principal, he opposed the school-reform bill proposed for that city by Mayor Schieren's Advisory Committee in 1893. Our impression as to Mr. Stewart's attitude was derived from statements contained in the Brooklyn newspapers at the time that the proposed measure was under discussion. We hasten, therefore, to correct this error and to tender an apology to Mr. Stewart for the unintentional misrepresenta-

tion of his position. Since Mr. Stewart did not oppose the Brooklyn school-reform measure, the reasons for his selection by Boss Jasper and the Learned and Self-Sacrificing Hunt to serve with them on the New York Board of Superintendents must be sought elsewhere. They are not lacking.

Intelligence for October 15 has this to say about the New York city schools:

The public-school system of New York city was born in a very uncongenial and unfavorable atmosphere. Those schools were the outgrowth of what was practically a system of charity schools, and that odor has continued to cling to them in the estimation of genuine New Yorkers, although it has been growing less and less with each generation. But the public sentiment of New York is not yet characterized by that hearty loyalty in all classes to the public schools which exists in Boston, St. Louis, Chicago, and, in fact, in all the other Northern cities, great and small.

The inauspicious origin of the system may account for the fact that the schools of New York city have always been a source of regret and mortification to educators who take pride in the advancement and growing efficiency of the public-school system in all other parts of the country. No Western superintendent on a visiting tour to the East for educational light and inspiration ever spent any time in New York city, unless he had failed to inform himself as to the prevalent conditions there. When foreigners desired to study our public-school system, every patriotic educator regrets that commercial facilities always landed them in New York, and that too often they got no other idea of our educational system and its results than what they obtained in that city.

This accounts for the satisfaction felt in all parts of the country, particularly in educational circles, when it was known that the New York Legislature had passed a bill reorganizing the school board of New York city, and that the citizen element which was bent on reforming the schools seemed to be controlling matters. It also accounts for the disappointment felt when the press announced in August the failure of the reform and the re-election of Mr. Jasper as superintendent for six years.